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COUNTY BOROUGH OF CORK

REPORT OF THE
MEDICAL OFFICER
OF HEALTH

FOR THE YEAR

1943

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J. C. SAUNDERS, M.D., D.P.H..

Medical Officer of Health.

CORK :
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1944.

*To the Lord Mayor, Aldermen and Councillors,
of the County Borough of Cork.*

MY LORD MAYOR AND GENTLEMEN,

I present herewith my Annual Report for 1943. The tuberculosis death rate shows a slight increase (1.68 per 1,000 as compared with 1.57 in 1942) which was made up almost entirely of deaths from non-pulmonary tuberculosis. There has been a rather sharp increase in the infant mortality rate from 100 to 113 which, on investigation, was found to be due mainly to an increase in the number of deaths from prematurity. These two factors are discussed in the text. The general death rate was 16.5 as compared with 15.9 in 1942, this increase being almost entirely due to the two factors above. Once again the city has been completely free from typhoid fever, this marking the first occasion in our records in which for two successive years there were no cases of this disease. Maternal mortality also reached a low record, the figure being 1.6 per 1,000 (as compared with 1.7 in 1942, the previous lowest figure). The results of the bacteriological examinations of the water supply were the best so far recorded. The standard aimed at is 100 c. c's. free from B. Coli, this was attained in no less than 99.2 per cent. of the samples submitted.

One of our major problems is the elimination of scabies. In common with other localities there has been a very marked spread of the disease in this area and special steps have been taken to deal with it. The success of these efforts is entirely dependent on the co-operation of the public, and everything possible should be done to induce affected persons to come for treatment. The administrative measures adopted are referred to in the body of the report.

In conclusion I have to draw your attention to the very disquieting increase in the figures relating to venereal disease. In last year's report I had occasion to refer to this matter, the figures for the year under review show an increase much greater than that recorded in 1942. In my opinion this is now our principal public health problem, involving as it does, a poisoning of the well-springs of our national life.

I remain,

Your obedient servant,

J. C. SAUNDERS.

PUBLIC HEALTH STAFF

Medical Officer of Health :

J. C. Saunders, M.D., D.P.H.

Assistant Medical Officer of Health :

Patrick F. Fitzpatrick, M.B., B.Ch., B.A.O., D.P.H.

School Medical Officer :

Annie M. Sullivan, M.B., B.Ch., B.A.O., D.P.H.

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Daniel J. O'Sullivan, M.Sc., F.I.C.

Chief Veterinary Officer :

S. R. J. Cussen, D.V.S.M., M.R.C.V.S.

Assistant Veterinary Officer :

J. C. Brown, M.R.C.V.S.

Sanitary Inspectors :

John O'Brien

Timothy Newman

Thomas F. Murray

Daniel Murphy

James V. Nerney

Leo. J. Woodnutt

Miss N. Dunn

Tuberculosis Nurse:

Miss L. Lyndon.

Maternity and Child Welfare Nurses :

Miss M. Gillespie

Miss H. Neville

Miss H. A. Crowley

School Nurses :

Miss M. Lordan

Miss M. O'Sullivan

Miss N. Dillon

Clerk and Inspector to Port Sanitary Authority

J. P. Kieran

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SUMMARY OF STATISTICS.

Area (in Acres)	2,618
Population (Register of Population 1941)	76,750
Density of Population (persons to the acre)	28.9
Rateable Value	£237,276 0 0
Sum represented by a Penny Rate... ..	£943
Number of Births	1,781
Birth Rate	23.2
Number of Deaths	1,270
Death Rate	16.5
Maternal Mortality Rate	1.6
Infantile Mortality	113
Zymotic Death Rate	0.8

Section I.—Vital Statistics.

1.—Population.

The decline in population revealed by the Register of Population, 1941, was fully discussed in the Report for 1941. The results of the enumerations of population of the various census years were as follows.

1881	...	...	...	80,124
1891	...	...	...	75,345
1901	...	...	...	76,122
1911	...	...	...	76,673
1926	...	...	...	78,464
1936	...	...	...	80,765
1941	...	...	...	76,758

2.—Births.

According to the Annual Summary of the Registrar General, the total number of births *registered* in Cork during 1942 was 1,781. The number of live births *notified* to the Public Health Department (in accordance with the provisions of the Notification of Births Act) was 1,640. In addition to this latter figure there were 32 still births notified, bringing the total *notified* births to 1,658 for the year. On the basis of the Registration General's figures the birth-rate for the year was 23.2. The birth-rate in this city has preserved a remarkable steadiness of character over the past sixty-three years as shown in Table 1. The decennial averages during this period were as follows:—

1881-90	...	...	...	26.2
1891-1900	...	...	...	27.2
1901-10	...	...	...	26.0
1911-20	...	...	...	24.7
1921-30	...	...	...	23.5
1931-40	...	...	...	22.6
1941	...	...	...	21.8
1942	...	...	...	22.2
1943	...	...	...	23.2

The number of illegitimate births notified during the year was 21 representing 1.4 per cent. of the total notified births. The corresponding figures for the previous year was 32 births being 1.75 per cent. of the total registered births. The latter figures are taken from the Annual Report of the Registrar General for 1942.

Table 1.—Birth Rates for Cork City and Éire from 1881.

Year	Cork	Éire	Year	Cork	Éire
1881	27.7	24.0	1912	24.8	22.7
1882	28.2	23.8	1913	24.2	22.6
1883	27.0	23.4	1914	24.3	22.3
1884	27.4	23.5	1915	23.2	22.0
1885	25.6	23.1	1916	22.6	21.1
1886	25.4	22.7	1917	20.2	20.0
1887	25.5	22.5	1918	20.8	19.9
1888	25.7	22.1	1919	23.8	19.9
1889	25.2	22.0	1920	28.3	21.6
1890	25.0	21.6	1921	24.6	19.7
1891	26.9	22.3	1922	24.2	19.5
1892	24.6	21.7	1923	26.2	20.5
1893	27.8	22.1	1924	25.5	21.0
1894	27.4	22.1	1925	23.8	20.8
1895	28.9	22.3	1926	21.5	20.6
1896	29.2	22.7	1927	21.7	20.3
1897	27.5	22.5	1928	21.7	20.1
1898	28.7	22.3	1929	20.9	19.8
1899	27.3	22.1	1930	25.4	19.9
1900	25.8	21.8	1931	24.4	19.4
1901	25.6	21.8	1932	23.0	19.0
1902	26.2	22.2	1933	23.7	19.3
1903	27.1	22.1	1934	24.4	19.5
1904	27.4	22.7	1935	24.8	19.6
1905	27.6	22.6	1936	23.7	19.6
1906	27.5	22.8	1937	22.3	19.1
1907	25.6	22.4	1938	21.1	19.4
1908	27.3	22.7	1939	21.1	19.1
1909	26.3	22.9	1940	20.7	19.1
1910	25.8	22.8	1941	21.8	18.9
1911	26.0	22.8	1942	22.2	22.0
			1943	23.2	22.3*

* From *Annual Summary* of Register General.

3.—Deaths.

1,270 deaths have been assigned to this area in the Annual Summary of the Registrar General for 1943. This is equivalent to a crude death rate of 16.5 per 1,000 of the population. The figures for 1942 were 1,221 deaths and the rate 15.9 per 1,000. There is some discrepancy between our figures collected locally (shewn in Table 5) and those of the Registrar General. This discrepancy has persisted in successive years and has been alluded to in previous reports. According to our figures the number of deaths was 1,243 (compared with 1,200 for 1942). Presumably this difference is explained by the deaths (in other localities) of persons whose normal place of residence was Cork, and of which deaths we would not have been aware. In actual practice the differences which have become apparent between our figures and those of the Registrar General are of such a degree as not to be of statistical significance and since the information to be obtained from our age-grouping is slightly more detailed than that of the Registrar General, a comparison has been made in the following table of the number of deaths in each age-group as recorded from locally collected statistics for the years 1942 and 1943.

Table 2—Deaths according to age-groups

Age Group	1942	1943	Difference
0-1 years	160	197	+ 37
1-5 „	40	47	+ 7
5-15 „	23	28	+ 5
15-25 „	46	42	— 4
25-35 „	46	46	0
35-45 „	62	75	+ 13
45-55 „	110	99	— 11
55-65 „	224	213	— 11
65-75 „	311	305	— 6
75-85 „	147	167	+ 20
85 Upwards	31	24	+ 7
Males	620	581	— 39
Females	580	662	+ 82
TOTAL	1200	1243	+ 43

It is seen that the main increase has been in the age-groups under one year. The factors which have contributed to this particular increase are discussed under the heading of infant mortality in the appropriate section. The group, in fact, accounts almost entirely for the total increase. There has been an increase also in the number of deaths of persons over 75 years of age but this has been set off by decreases in other age-groups. There has been a decrease in the total number of male deaths and a very definite increase in female deaths. The increased number of deaths (+13) in the 35-45 years group is accounted for almost entirely by deaths from heart disease (16 as compared with 11 in the previous year). There was no increase in deaths from tuberculosis in this group, the number being actually the same as in the previous year. The main contributory factors to the increase recorded in the 75-85 years group were Cancer (+6); heart disease (+9) and cerebral haemorrhage (+9).

Taking all age groups together the increased number of deaths recorded is accounted for mainly under three headings, heart disease (+32); congenital debility (+19); and marasmus (+8). There was a reduction in deaths from cancer (—29), deaths under the other headings varying but very little from the average. Apart from increased infant deaths (accounted for almost entirely by deaths attributed to prematurity) the position remains substantially the same as it was last year when it was remarked that there had been no material deterioration in the general health of the community as evidenced by the statistical information at our disposal. In view, however, of the very critical time in which we live it is necessary to exercise great caution in expressing any opinion as to future possibilities.

The quarterly returns of deaths have been continued and are shewn in Table 3.

Table 3.—Deaths and Death-Rates (all Causes) by Quarters 1936 to 1943

Year	Consecutive Quarter	EIRE			CORK			DUBLIN			LIMERICK			WATERFORD		
		Number of Deaths	Rate per 1,000		Number of Deaths	Rate per 1,000		Number of Deaths	Rate per 1,000		Number of Deaths	Rate per 1,000		Number of Deaths	Rate per 1,000	
1936	1	12,869	17.0		395	20.1		2,048	18.9		201	20.4		102	15.3	
	2	10,801	14.6		281	14.3		1,669	14.3		156	15.8		99	14.9	
	3	8,667	11.7		227	12.2		1,442	12.3		123	11.9		96	13.7	
	4	10,253	13.8		285	14.1		1,837	15.7		141	13.6		97	13.9	
1937	1	15,366	20.8		524	26.0		2,503	21.2		215	20.8		149	21.3	
	2	11,214	15.2		346	17.1		1,624	13.8		137	13.2		85	12.2	
	3	8,615	11.7		256	12.7		1,347	11.4		120	11.6		80	11.4	
	4	9,920	13.5		277	13.7		1,549	13.1		131	12.7		115	16.4	
1938	1	11,442	15.7		308	15.3		1,912	16.0		157	15.5		144	20.6	
	2	9,814	13.4		297	14.7		1,486	12.5		135	13.2		103	14.7	
	3	8,587	11.7		227	11.2		1,321	11.1		121	11.8		72	10.3	
	4	10,198	13.9		308	15.3		1,636	13.7		138	13.4		90	12.9	
1939	1	13,313	18.2		294	14.6		1,990	16.5		145	14.1		93	13.3	
	2	10,372	14.2		253	12.5		1,537	12.7		157	15.3		119	17.0	
	3	8,600	11.7		232	11.5		1,339	11.1		121	11.8		80	11.4	
	4	9,432	12.9		281	13.9		1,537	12.7		125	12.2		84	12.0	
1940	1	13,376	18.1		332	16.4		2,623	21.5		182	17.7		190	27.2	
	2	10,506	14.2		299	14.8		1,599	13.1		141	13.7		117	16.7	
	3	8,530	11.5		252	12.5		1,334	10.9		131	12.8		85	12.2	
	4	9,621	13.0		293	14.5		1,509	12.4		150	14.6		98	14.0	
1941	1	14,648	19.6		490	24.3		2,060	16.8		188	18.3		131	18.7	
	2	11,328	15.1		291	14.4		1,746	14.2		133	13.0		120	17.2	
	3	8,683	11.6		216	10.7		1,485	12.1		109	10.6		89	12.7	
	4	9,164	12.3		242	12.6		1,612	13.2		122	11.5		101	14.2	
1942	1	12,103	16.3		366	19.1		1,952	16.0		184	17.3		116	16.3	
	2	10,811	14.6		312	16.3		1,694	13.8		130	12.2		126	17.7	
	3	8,524	11.5		264	13.8		1,423	11.6		132	12.4		82	11.5	
	4	10,181	14.0		279	14.5		1,786	14.6		134	12.6		93	13.1	
1943	1	12,603	17.1		382	19.9		2,085	16.5		205	19.3		150	21.1	
	2	10,944	14.8		308	16.0		1,701	13.6		131	12.3		119	16.7	
	3	8,971	12.2		261	13.6		1,536	12.5		118	11.1		87	12.2	
	4	10,908	14.8		319	16.6		1,946	15.6		139	13.1		114	16.0	

Table 4 sets out the death rates per 1,000 persons living in Cork City, Éire and in England and Wales during the period 1881 to 1943. These figures do not necessarily represent the relative healthiness of the communities concerned since they are based on crude death rates. In order to compare such conditions the figures would have to be based on standardised death-rates. The general trend of the death-rate is, however, indicated by this table.

Table 4—Crude Death Rates per 1,000 living for Cork City, Éire and England and Wales, 1881–1943.

Year	Cork	Éire	E. & W.	Year	Cork	Éire	E. & W.
1881	26.8	17.1	18.9	1912	19.1	16.2	13.4
1882	24.7	16.9	19.6	1913	21.5	16.8	13.8
1883	24.9	18.6	19.6	1914	20.2	16.1	14.0
1884	26.7	17.4	19.7	1915	20.7	17.5	15.7
1885	26.2	18.0	19.2	1916	18.2	16.5	14.3
1886	22.1	17.4	19.5	1917	17.4	16.9	14.2
1887	22.4	17.9	19.1	1918	20.4	17.5	17.3
1888	24.1	17.4	18.1	1919	20.2	17.9	14.0
1889	22.3	16.9	18.2	1920	17.5	14.7	12.4
1890	22.2	17.6	19.5	1921	15.4	14.3	12.1
1891	26.9	17.6	20.2	1922	18.0	14.7	12.8
1892	26.4	18.7	19.0	1923	14.0	14.0	11.6
1893	24.5	17.3	19.2	1924	17.8	15.0	12.2
1894	24.9	17.7	16.6	1925	15.5	14.7	12.2
1895	23.9	17.7	18.7	1926	17.3	14.0	11.6
1896	22.6	15.9	17.1	1927	14.7	14.8	12.3
1897	24.7	17.8	17.4	1928	15.2	14.2	11.7
1898	23.7	17.7	17.5	1929	16.9	14.6	13.4
1899	26.3	17.0	18.2	1930	17.3	14.1	11.4
1900	24.2	19.1	18.2	1931	16.4	14.5	12.3
1901	23.0	17.1	16.9	1932	15.7	14.4	12.0
1902	21.5	17.0	16.3	1933	14.9	13.6	12.3
1903	19.4	17.0	15.5	1934	14.7	12.9	11.8
1904	21.6	17.6	16.3	1935	14.8	13.9	11.7
1905	21.7	16.4	15.3	1936	14.7	14.3	12.1
1906	20.2	16.2	15.5	1937	17.4	15.3	12.4
1907	20.6	17.0	15.1	1938	14.1	13.6	11.6
1908	22.2	17.1	14.8	1939	13.1	14.2	12.1
1909	22.1	16.8	14.6	1940	14.6	14.1	14.0
1910	19.3	16.6	13.5	1941	16.1	14.6	12.9
1911	21.2	16.3	14.6	1942	15.9	14.0	11.6
				1943	16.5	14.7	—

Table 5, which is based on Abstract V. of the Registrar-General's Annual Report, is an analysis of the causes of death during the year 1942. It differs from Abstract V. in this respect that the age-groups are more extended and that the causes of death have been sub-divided in some instances. For example, under the headings "other forms of tuberculosis" and "other defined diseases" the various causes of death are more fully set out. This has been made possible by the system of weekly collection of deaths from the district Registrar's registers and the card-index system of filing which has been adopted in connection with it. This table is compiled from the weekly returns collected by us from

the local Registrars and the totals do not correspond with those of the Registrar-General in his Summary, which are not fully corrected. The number of deaths in this table amounts to 1,243 (as compared with 1,270 in the Summary) so that the error is but slight and probably due to deaths in other places which have been allocated by the Registrar-General to this area. Once again I have to acknowledge the assistance received from the Registrar-General in the compilation of these figures.

The principal causes of death (in order of importance) were as follows :—

1. Heart Disease	...	349	(317)
2. Cancer	...	120	(149)
3. Pulmonary Tuberculosis	...	107	(106)
4. Bronchitis	...	69	(81)
5. Cerebral Haemorrhage	...	76	(69)
6. Premature Birth	...	71	(50)
7. Diarrhoea and Enteritis	...	52	(52)
8. Senile Decay	...	50	(47)
9. Broncho-pneumonia	...	36	(32)
10. Lobar Pneumonia	...	23	(27)
11. Violence	...	23	(25)
12. Nephritis	...	19	(21)

The figures in parenthesis denote the corresponding number in 1942.

Cardiac Disease. As usual this condition accounts for the great bulk of the deaths. Stress has been laid on deaths from heart disease and allusion made to the fact that the majority of them are found to be recorded in the later age-groups which gives rise to the supposition that they represent a degenerative condition rather than an infective one. This feature has been reproduced this year as shewn in the following table.

Table 6.—Analysis of deaths from heart disease from 1931.

Year	Under 5 years	5/15 years	15/25 years	25/35 years	35/45 years	45/55 years	55/65 years	65/75 years	75 yrs and up	Total
1931	—	6	3	5	18	31	66	87	34	250
1932	—	6	2	9	17	39	50	99	36	258
1933	—	2	4	5	15	31	58	83	42	240
1934	1	3	4	5	20	17	66	103	39	258
1935	2	3	1	7	11	29	63	93	36	245
1936	4	3	3	7	6	32	64	98	48	265
1937	—	5	6	9	16	24	72	112	64	308
1938	1	2	2	2	12	35	67	106	76	304
1939	—	1	4	2	12	27	63	108	61	278
1940	2	—	5	4	12	21	66	109	74	293
1941	—	3	2	6	12	22	82	108	71	306
1942	1	1	1	5	11	25	74	131	60	317
1943	—	1	7	4	16	28	81	133	79	349

The general trend of deaths from heart disease is shewn in the following table in which a comparison is made with deaths from cancer and pulmonary tuberculosis. It will be noted that there was quite a substantial increase in the number as compared with the previous year.

Table 5.—Analysis of Causes of Death at different age-periods during the year 1943.
(according to certified causes of death).

Causes of Death	TOTAL	Sex		Un 1 yr.	1 to 5	5 to 15	15 to 25	25 to 35	35 to 45	45 to 55	55 to 65	65 to 75	75 to 85	85 and up
		M.	F.											
Whooping Cough ...	4	2	2	2	2	—	—	—	—	—	—	—	—	—
Diphtheria ...	17	6	11	—	8	8	—	1	—	—	—	—	—	—
Influenza ...	7	1	6	1	—	—	1	—	—	—	2	2	—	1
Pulmonary Tuberculosis ...	107	61	46	—	1	2	19	25	22	17	15	6	—	—
Other Tuberculosis Diseases :—					....								
(a) Meningitis ...	16	8	8	2	7	2	3	1	1	—	—	—	—	—
(b) Abdominal ...	3	2	1	—	2	—	1	—	—	—	—	—	—	—
(c) Other Forms ...	4	3	1	1	—	1	1	—	1	—	—	—	—	—
Cancer ...	120	51	69	—	—	—	—	4	11	15	30	43	17	—
Diabetes ...	2	—	2	—	—	—	—	1	—	—	—	—	1	—
Cerebral Haemorrhage ...	76	27	49	3	—	—	—	—	4	4	21	27	16	1
Heart Disease ...	349	160	189	—	—	1	7	4	16	28	81	133	69	10
Arterio-Sclerosis ...	15	5	10	—	—	—	—	—	—	—	5	6	3	1
Bronchitis... ..	69	36	33	4	1	—	—	1	3	9	13	21	16	1
Pneumonia :—														
(a) Lobar ...	23	14	9	3	2	2	1	—	3	3	3	5	—	1
(b) Broncho ...	36	20	16	19	7	1	1	—	—	—	3	5	—	—
Other Respiratory Diseases ...	16	10	6	1	1	1	—	—	2	3	1	5	1	1
Gastric and Duodenal Ulcer ...	14	11	3	—	—	—	—	—	3	2	7	2	—	—
Diarrhoea and Enteritis ...	52	34	18	50	2	—	—	—	—	—	—	—	—	—
Appendicitis ...	1	1	—	—	—	—	—	—	—	—	1	—	—	—
Nephritis ...	19	10	9	1	—	1	—	1	2	2	5	6	1	—
Puerperal Sepsis ...	1	—	1	—	—	—	—	1	—	—	—	—	—	—
Other Puerperal Causes ...	2	—	2	—	—	—	—	2	—	—	—	—	—	—
Congenital Debility, etc. ...	71	36	35	71	—	—	—	—	—	—	—	—	—	—
Suicide ...	2	1	1	—	—	—	—	1	1	—	—	—	—	—
Other Violent Deaths ...	21	10	11	—	—	1	3	—	1	—	4	5	6	1
Other Defined Causes:														
(1) Gastro-Intestinal ...	17	6	11	—	2	2	—	—	2	2	2	5	2	—
(2) Convulsions ...	14	9	5	10	4	—	—	—	—	—	—	—	—	—
(3) Central Nervous System ...	16	7	9	1	1	—	—	1	—	4	4	3	2	—
(4) Anaemia and Blood Diseases ...	13	3	10	—	1	—	—	—	—	5	5	2	—	—
(5) Genito-Urinary ...	6	3	3	—	—	—	—	1	1	1	1	—	2	—
(6) Marasmus ...	22	6	16	20	2	—	—	—	—	—	—	—	—	—
(7) Rheumatic Diseases ...	14	4	10	—	—	2	—	—	—	—	7	5	—	—
(8) Hepatic Disease ...	4	2	2	—	—	—	—	—	—	2	1	1	—	—
(9) Septicaemia ...	11	6	5	3	1	1	2	1	1	—	—	2	—	—
(10) Gangrene ...	4	2	2	—	—	—	—	—	—	—	1	3	—	—
(11) Senile Decay ...	50	17	33	—	—	—	—	—	—	—	—	12	31	7
(12) Miscellaneous ...	21	7	14	5	3	3	2	1	1	2	1	3	—	—
111 Defined or Unknown Causes	4	—	4	—	—	—	1	—	—	—	—	3	—	—
Totals ...	1243	581	662	197	47	28	42	46	75	99	213	305	167	24

Table 7.—Trend of mortality from the three principal causes of death in Cork City from 1931.

Year	Condition		
	Heart Disease	Cancer	Pulmonary Tuberculosis
1931	250	124	103
1932	258	98	111
1933	240	114	106
1934	258	111	107
1935	245	133	115
1936	265	121	85
1937	308	117	96
1938	304	106	99
1939	278	143	86
1940	293	114	96
1941	306	125	88
1942	317	149	106
1943	349	120	107

Cancer. The number of deaths attributable to this disease recorded by us was 120 as compared with 149 in 1942. The corresponding figures of the Registrar-General are 116 (uncorrected) and 151. The discrepancy observable here, no doubt, is due to a difference in classification, all forms of malignant disease being classed by us under this heading. For comparative purposes the Registrar-General's are the more correct figures. On the basis of 116 deaths the rate was 1.3 per 1,000 of the population.

Phthisis Death Rate. The deaths from pulmonary tuberculosis numbered 107 equivalent to a rate of 1.4 per 1,000 of the population. The corresponding figures for last year were 106 and 1.3 per 1,000 respectively. The figures for the years from 1911 onwards are set out in Section IV.

Infant Mortality. The number of deaths of children under one year of age was 202* which is equivalent to a rate of 113 per 1,000 live births. In 1942 the number of deaths was 171 and the rate 100 per 1,000. The contributory factors are discussed in Section V.

Maternal Mortality. There were 3 deaths from causes under this heading during the year. The maternal mortality rate was 1.6.

Infectious Disease Death Rate. The number of deaths from the principal infectious diseases was 63 equivalent to 0.8 per 1,000 of the population.

* This figure is taken from the Annual Summary of the Registrar-General for 1943 (p. 69). According to our computation the number of such deaths was 197.

Table 8.—Deaths registered during the year 1943, for the County Borough of Cork by Registrars' Districts, with the infant mortality per 1,000 Births. (Table taken from Annual Summary of Register General, the returns for which are not fully corrected).

8a

REGISTRAR'S DISTRICTS, &c.				INFANT MOR- TALITY PER 1,000 BIRTHS	DEATHS																													
					TOTAL DEATHS	AGES AT DEATH										DEATHS FROM										Influenza.	Cancer	Diseases of Respiratory System				Inquest Cases.	In Public Institutions	Number of Uncert- ified Deaths.
						Under 1 year	1 and under 2.	2 and under 5.	5 and under 15.	15 and under 25.	25 and under 45.	45 and under 65.	65 and upwards.	Principal Epidemic Diseases					Tuber- culosis		Pneumonia.	Other	Violence	Other Causes.										
														Typhoid fever Typhus, Small pox, Dysentery	Scarlet fever.	Whooping cough.	Diphtheria.	Measles	Diarrhoea and Enteritis (under 2 years).	Pulmonary					Other Forms.									
CITY OF CORK																																		
Cork Urban No. 1	...	...	—	183	19	3	3	4	5	17	31	101	.	.	1	2	.	1	14	4	1	15	4	17	6	118	7	95	3				
„ No. 2†	...	...	—	190	29	3	2	6	5	18	56	71	.	.	1	3	.	8	16	3	1	13	5	9	7	124	8	116	.				
„ No. 3†	...	...	—	146	25	4	6	3	5	11	39	53	.	.	.	4	.	8	10	1	.	16	10	6	1	90	3	70	.				
„ No. 4†	...	...	—	129	20	2	5	3	7	14	33	45	.	.	1	2	.	4	14	1	1	5	5	10	2	84	3	79	.				
„ No. 5†	...	...	—	139	28	1	3	3	4	9	41	50	.	.	.	2	.	4	10	.	2	16	14	9	1	81	4	79	.				
„ No. 6	...	...	—	171	23	3	3	1	5	15	51	70	.	.	.	1	.	6	14	4	.	12	7	19	3	105	4	91	1				
„ No. 7	...	...	—	312	58	6	4	6	12	39	67	120	.	.	1	2	.	12	27	7	2	39	15	22	3	182	9	195	4				
TOTAL CITY OF CORK ...				113	1,270	202	22	26	26	43	123	318	510	.	.	4	16	.	43	105	20	7	116	60	92	23	784	38	725	8				

† The boundaries of these districts were altered as from 1st April 1941; the populations for the existing districts are not yet available

8b

Summary of Births and Deaths Registered during the Years 1878 to 1943, inclusive, in the Cork Urban Sanitary District with the number of Deaths from some of the principal causes.

[illegible]

†Both were resident in Mental Hospital (outside City area) for several years.

Table 10.—Showing the number of deaths from the principal epidemic diseases during the past ten years.

Year	Small Pox	Typhus Fever	Typhoid Fever	Scarlatina	Puerperal Fever	Membranous Croup	Diphtheria	Measles	Diarrhoea	Whooping Cough
1934	—	—	—	2	5	—	25	11	36	16
1935	—	—	—	—	1	—	7	7	56	1
1936	—	—	—	7	1	—	8	10	41	5
1937	—	—	—	10	—	—	17	—	52	12
1938	—	—	1*	3	—	—	7	—	33	3
1939	—	—	—	1	1	—	3	—	39	6
1941	—	—	—	1	—	—	5	21	52	—
1940	—	—	—	—	—	—	5	6	36	—
1942	—	—	—	—	—	—	21	—	52	2
1943	—	—	—	—	1	—	17	—	52	4

* Infection in this case was incurred outside the City area.

Uncertified Deaths. Eight uncertified deaths were recorded during the year as compared with eighteen in 1941.

Deaths from Violence. In the 23 recorded instances the cause of death was as follows :—

Falls	...	...	10
Drowning	...	...	4
Suicide	...	...	2
Motor Car Accidents	...	...	3
Burns	...	...	1
Miscellaneous	...	...	3

Table 11.—INFANT DEATH RATE.

Year	Births	Deaths under 1 year	Deaths per 1000 Births	Year	Births	Deaths under 1 year	Deaths per 1000 Births
1881	2167	271	124	1912	1903	204	107
1882	2212	283	127	1913	1853	253	136
1883	2161	236	109	1914	1897	226	119
1884	2199	253	110	1915	1778	235	132
1885	2054	247	120	1916	1732	182	105
1886	2037	225	110	1917	1552	169	108
1887	2042	252	123	1918	1559	189	118
1888	2058	288	139	1919	1825	183	100
1889	2023	253	125	1920	2169	173	79
1890	2005	214	106	1921	1887	144	76
1891	2024	281	138	1922	1853	173	93
1892	1978	297	150	1923	2007	133	66
1893	2092	268	132	1924	1990	175	87
1894	2063	310	150	1925	1827	136	74
1895	2179	287	131	1926	1687	220	130
1896	2144	229	106	1927	1701	148	87
1897	2073	316	152	1928	1764	135	76
1898	2160	285	131	1929	1816	156	85
1899	2060	276	133	1930	1998	155	77
1900	1944	235	120	1931	1921	138	71
1901	1942	272	139	1932	1819	168	89
1902	2031	258	127	1933	1852	165	89
1903	2066	232	112	1934	1922	139	72
1904	2089	249	118	1935	1945	162	83
1905	2099	276	131	1936	1921	154	80
1906	2094	279	133	1937	1818	187	103
1907	1946	254	139	1938	1708	129	76
1908	2084	281	134	1939	1711	125	73
1909	2000	251	125	1940	1670	153	92
1910	1965	189	96	1941	1680	142	85
1911	1992	277	139	1942	1706	171	100
				1943	1781	197	113

Section. II.—Infectious Diseases

The following diseases are compulsorily notifiable in this area :—

Small Pox	Acute Influenzal Pneumonia
Cholera	Malaria
Typhus	Dysentery
Typhoid (Enteric Fever)	Encephalitis Lethargica
Simple Continued Fever	Cerebro Spinal Fever
Scarlatina	Poliomyelitis
Puerperal Fever	Ophthalmia Neonatorum
Diphtheria	Pemphigus Neonatorum
Membranous Croup	Puerperal Pyrexia
Erysipelas	Trachoma
Measles	Undulant Fever
Diarrhoea	Whooping Cough
Acute Primary Pneumonia	

The last six diseases were made notifiable by the Public Health (Infectious Diseases) Regulations 1941.

The Infectious Disease (Notification) Act, 1889, was by a resolution of the Corporation, dated 7th February, 1890, adopted in the County Borough.

The Act was subsequently made to apply to the following diseases :—

Name of Disease	Date of Resolution making Act applicable	Period in force
Cerebro-Spinal Meningitis ...	13 July, 1900 ...	Till 31st December, 1900
do. ...	22 February, 1907	Till revoked
Measles ...	26 May, 1905 ...	do.
Diarrhoea ...	14 December, 1906	1 July, 1907, to 31 Oct., 1907
do. ...	12 February, 1909	1 July, 1909, until revoked
Poliomyelitis or Infantile Paralysis ...	10 November, 1916	Till revoked

The Infectious Disease (Prevention) Act, 1890, was, by a resolution of the Corporation, dated 11th March, 1892, adopted and put into force in the County Borough.

The Public Health Acts Amendment Acts, 1907, was adopted and put into force by a resolution dated the 24th January, 1908, save as regards Sections 21, 24 to 33, 48, 66, 78 to 86, and 91 to 95.

The Public Health (Ireland) (Pneumonia, Malaria, Dysentery, etc.) Regulations, 1919 were revoked and are replaced by "The Public Health (Infectious Diseases) Regulations, 1929." Trench Fever, which was included in the 1919 Regulations, has been withdrawn in the new order.*

The Emergency Powers (No. 46) Order, 1940 still remains in force. The provisions of this Order were fully reported on in the 1941 report.

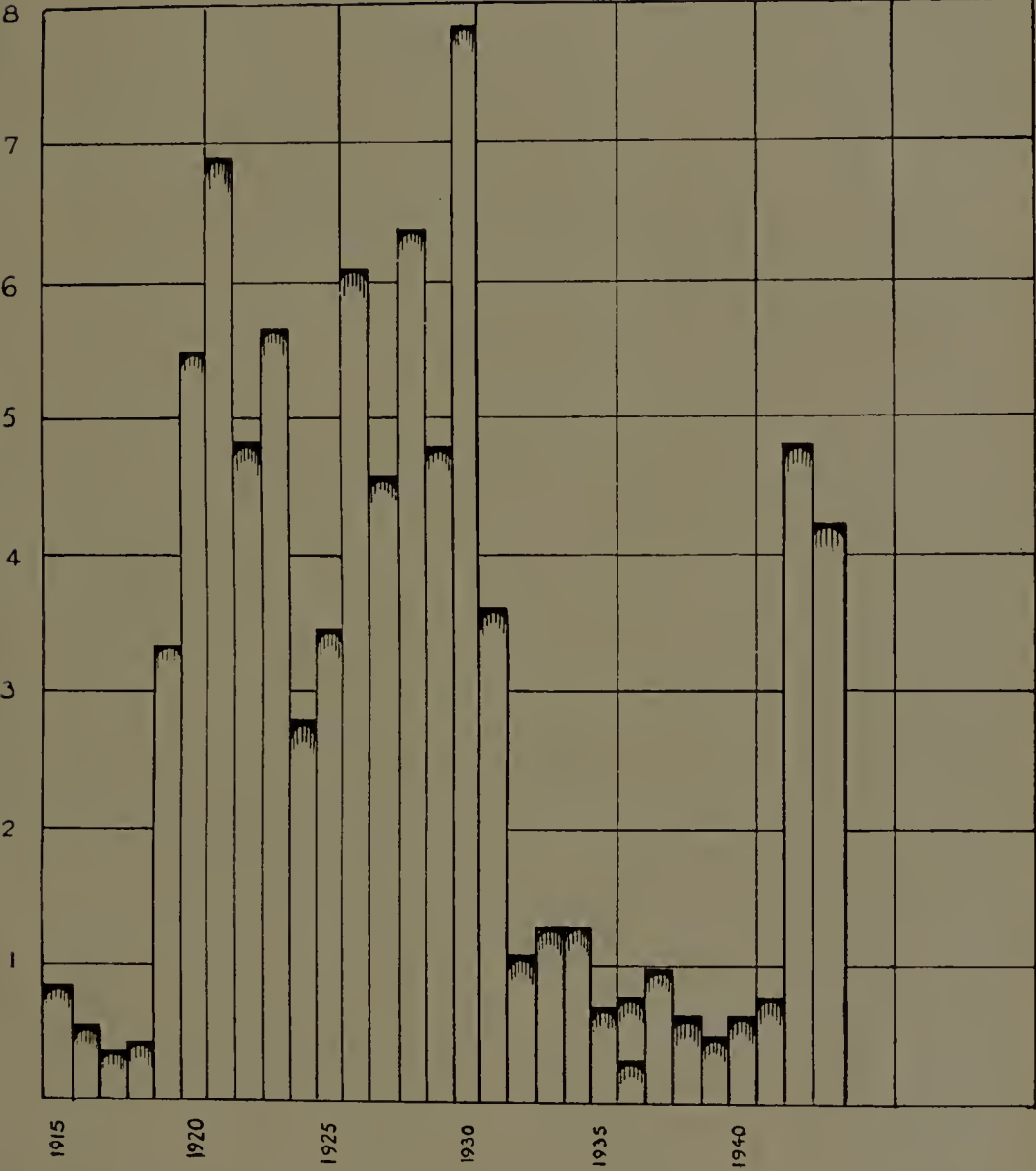
1291 notifications were received during the year as compared with 919 in the previous year. The three principal contributory factors were (in order of importance) Scabies 558 cases, diphtheria 326 and epidemic diarrhoea 154. Scabies was made notifiable during the year by the Minister under the powers conferred on him by the Emergency Powers Order above referred to. There would have been a substantial reduction in the number of notifications received if this condition had remained non-notifiable. There was a reduction in the number of cases of whooping-cough (36 cases as contrasted with 95 in the previous year). This disease became notifiable for the first time in 1942, when the provisions of the Public Health (Infectious Diseases) Regulations, 1941 became applicable to it. Although epidemic diarrhoea is listed as the the third most important of the infectious diseases for the year there was, in fact, a substantial decrease in the number of cases as compared with 1942 (154 and 227 respectively).

DIPHTHERIA.

The incidence of this disease continued high during the year, the total number of cases recorded amounting to 326, as compared with 376 in the previous year so that, for practical purposes, it may be said that there was no abatement of the epidemic which made its appearance in that year, nor was there any substantial reduction in the number of deaths (17 as contrasted with 21 in the previous year). The origin and cause of this epidemic as well as the various contributing factors were fully discussed in last year's report, so that the necessity for dwelling on them further does not arise. I would like however to draw attention once more to the fact that of the 17 deaths from diphtheria recorded during the past year there was not a single instance in which the victim was an immunised child. After fifteen years experience of immunisation we have records of over 23,000 children having completed the treatment and *of this large number there has not been a single death* from diphtheria. Meanwhile the toll of deaths of non-immunised children has, during this period, mounted to the formidable total of 256. In view of the fact that no less than 37 of these deaths occurred during the past two years it seems clear that the question of compulsory immunisation has become more important than ever. It is obvious that a great many people will not avail of the services placed at their disposal unless faced by an acute emergency and that, even under such circumstances, quite a large proportion will not take the trouble to have their children protected. Hence the lamentable record of mounting deaths from diphtheria.

* These Regulations are now revoked and replaced by the Public Health (Infectious Diseases) Regulations, 1941.

FIG. 1 —DIPHTHERIA. INCIDENCE (PER 1.000 POPULATION) FROM 1915.



In the following table the age-incidence and deaths from diphtheria are analysed. In last year's report I adverted to the large number of adults and older adolescents who had been affected. This feature was reproduced in the year now under review with the difference that it was even more marked than in the previous year. The number of cases in the 10-15 years group (61) represented an increase from 15 per cent. of the total cases in 1942 to 18.5 per cent. in 1943. The proportion in 15-25 years group showed an even more marked increase, from 8 per cent. to 18 per cent. while the number over 25 years (30 cases) had increased from 6 to 9.2 per cent. of the total. The total number of cases over 15 years was no less than 90. The number in 1942 was 52 and this was remarked upon as being very exceptional, so far as our records were concerned.

Table 12.—Analysis of cases and deaths.

Age Groups	CASES		DEATHS
	Number	Proportion of Total	Number
0-2 years	7	2.15 per cent.	0
2-4 „	39	11.96 „	7
4-6 „	63	19.33 „	4
6-8 „	36	11.04 „	0
8-10 „	30	9.20 „	2
10-15 „	61	18.71 „	3
15-25 „	60	18.41 „	0
25 & over	30	9.20 „	1
Total ...	326	100 per cent.	17

The incidence (per 1,000 of population) and the case-fatality rates of diphtheria from 1890 to the present year are set out in Table 13.

In a proportion of cases the reports received transpired not to be diphtheria. The actual number was 98 (approximately 30 per cent. of all notifications received). The age distribution of these was as follows :—

0-2 years	...	...	...	8 cases
2-4 „	...	...	...	14 „
4-6 „	...	...	...	11 „
6-8 „	...	...	...	7 „
8-10 „	...	...	...	5 „
10-15 „	...	...	...	15 „
15-20 „	...	...	...	10 „
Over 20 „	...	...	...	28 „
Total	...	...	...	98

Table 13.—Incidence and Case Fatality of Diphtheria from 1890.

Year	Cases	Rate per 1000 Population	Deaths	Fatality Rate
1890	20	0.26	8	40.00
1891	37	0.49	11	29.97
1892	11	0.14	3	27.27
1893	18	0.23	3	16.66
1894	14	0.18	4	28.57
1895	6	0.07	2	33.33
1896	7	0.09	1	14.28
1897	21	0.27	10	47.61
1898	18	0.23	4	22.22
1899	18	0.23	5	27.77
1900	23	0.30	2	0.86
1901	26	0.34	11	42.30
1902	8	0.10	4	50.00
1903	17	0.22	4	17.53
1904	29	0.38	6	20.60
1905	18	0.23	6	33.33
1906	37	0.48	11	29.73
1907	37	0.48	5	13.51
1908	40	0.56	9	22.50
1909	66	0.86	11	16.66
1910	51	0.65	11	19.29
1911	70	0.91	10	14.28
1912	52	0.67	6	11.54
1913	24	0.31	3	12.50
1914	54	0.70	13	24.07
1915	68	0.88	14	20.59
1916	43	0.55	9	20.93
1917	26	0.33	3	11.53
1918	34	0.43	6	17.64
1919	262	3.37	32	12.21
1920	428	5.50	60	14.02
1921	541	6.93	56	10.37
1922	379	4.86	42	11.08
1923	440	5.68	23	5.18
1924	217	2.85	12	5.40
1925	265	3.50	6	2.19
1926	469	6.10	18	3.75
1927	344	4.55	9	2.52
1928	385	6.37	19	4.75
1929	369	4.81	32	8.46
1930	627	7.86	59	10.00
1931	288	3.66	24	8.61
1932	85	1.08	17	20.00
1933	109	1.32	14	12.83
1934	109	1.32	25	22.10
1935	56	0.71	7	12.50
1936	25	0.31	8	32.00
1937	80	0.99	17	21.20
1938	54	0.66	7	12.77
1939	41	0.50	3	7.40
1940	52	0.67	5	9.61
1941	62	0.80	5	8.06
1942	372	4.84	21	5.64
1943	326	4.25	17	5.21

Note :—The Infectious Disease (Notification) Act, 1889, was adopted on 7th February, 1890.

DIPHTHERIA IMMUNISATION.

The total number of children who completed the full course of treatment during the year was 1,387, of whom 306 were children who were negative to the primary Schick test. There was a very marked falling off in attendances as compared with 1942 (when over 4,000 children were treated). The reduction was accounted for in the first place by the exceptionally large numbers dealt with in the previous year and secondly by the fact that the incidence of the disease became mitigated as the year 1943 wore on. 321 children failed to complete the full course.

Table 14.—Attendance at Diphtheria Prevention Clinic.

Year	Primary Schick Negative	Completed Full Course	Total	Not Completed Course
1929	—	1,802	1,802	—
1930	154	2,857	3,011	505*
1931	324	1,777	2,101	436
1932	91	422	513	208
1933	159	592	751	61
1934	826	1,716	2,542	432
1935	173	1,118	1,291	8
1936	458	1,741	2,199	22
1937	165	960	1,125	212
1938	106	708	814	205
1939	87	355	442	69
1940	87	552	639	90
1941	109	576	685	60
1942	367	3,795	4,162	891
1943	306	1,081	1,387	321
Totals	3,412	20,052	23,464	3,520

* Includes figures for *both* 1929 and 1930.

The figures for primary Schick tests in this table do not, of course, represent the *total* number of such tests performed but merely the number that proved *negative*. They are stated here for the purpose of estimating the number of children who have passed through our hands and who may be regarded as presumably immune. The number of primary tests has been reduced to a minimum. It is now confined to children over seven years. The great bulk of our cases are now under this age, so that the necessity for the primary test is comparatively rare.

Table 15.—Primary Schick Tests performed during 1943.

Age Group	Number of Cases	Positive	Negative	Proportion Positive
0-5 years	6	5	1	83.0 %
5-10 „	39	11	28	28.0 %
10 and over	261	91	170	34.8 %
Totals ...	306	107	199	34.9 %

Table 16.—Primary Schick Tests, 1929-43. Analysis showing proportion positive in each year.

Year	Number Tested	Positive	Negative	Proportion Positive
1929-30	1170	916	254	78.2 per cent.
1931	598	274	324	45.8 "
1932	301	210	91	69.7 "
1933	435	276	159	63.4 "
1934	1474	648	826	44.0 "
1935	309	136	173	44.0 "
1936	626	168	458	26.8 "
1937	266	101	165	38.0 "
1938	152	46	106	30.2 "
1939	110	23	87	20.9 "
1940	131	34	87	25.9 "
1941	146	37	109	25.3 "
1942	686	319	367	46.5 "
1943	306	107	199	34.9 "

Apart from record purposes this table is of little value as, obviously, the proportion of *positive* reactions will depend almost entirely on the age constitution of the groups of children tested and as this factor will fluctuate widely from year to year, so also will the results vary from one year to another. In this respect the next table is much more informative as the results in the different years have been analysed in accordance with the age groups of the children.

Table 17.—Primary Schick Tests, 1929-43. Analysis of proportion positive each year in different age groups.

Age Group	Proportion POSITIVE (expressed as percentages)													
	1929-30	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
0-5 years	—	—	88.4	79.7	65.8	66.6	66.6	—	—	50.0	25.0	—	25.0	83.0
5-10 "	—	—	60.1	63.3	44.2	49.5	41.5	43.8	25.0	28.6	20.4	30.9	45.2	28.0
10 and over	—	—	37.7	28.9	27.5	30.3	15.5	33.0	35.7	18.4	32.9	22.2	47.6	34.8
Whole Group	78.2	45.8	69.6	63.4	44.0	44.0	25.2	37.9	30.2	20.9	25.9	25.3	46.5	34.9

Owing to the smallness in the number of cases tested, no results can be adduced for the figures for the years 1937 to date.

The total number of cases dealt with, according to age-groups is shewn in the following figures.

(1) Treatment Incomplete—

0-5 years	...	...	162
5-10 years	...	...	101
10 and over	...	...	58
			321

(2) Treatment Complete—

0-5 years	...	...	700
5-10 years	...	...	285
10 and over	...	...	96
			1,081

Total New Cases Treated	...	...	1,402
No. of Primary Schick Negatives	...	...	306
Old cases tested and treated	...	...	260

Total 1,968

Table 18.—Secondary Schick Tests, 1930–1943.

Year	Total	Negative	Positive	Proportion Negative
1930	805	752	53	94.6 per cent.
1931	1166	991	175	85.2 "
1932	913	858	55	92.8 "
1933	893	801	92	89.0 "
1934	1105	1058	47	95.7 "
1935	1405	1388	17	98.8 "
1936	1272	1259	13	98.9 "
1937	732	722	10	98.6 "
1938	581	498	83	85.7 "
1939	215	205	10	95.3 "
1940	353	350	3	99.1 "
1941	488	464	24	95.0 "
1942	2,409	2,248	161	93.3 "
1943	1,232	1,178	54	97.2 "
Totals ...	13,569	12,772	697	93.9 per cent.

Alum-precipitated toxoid (A.P.T.) and toxoid anti-toxin floecules (T.A.F.) were the prophylactics used. The former was administered by the two-dose method (0.1 c.c. followed by 0.5 c.c.) and the latter in three doses of 1 c.c. each at intervals of a fortnight or three weeks.

SWAB EXAMINATIONS.

The following figures indicate the number of swabs examined in connection with the control of diphtheria since 1928.

Year	No. Examined	Year	No. Examined
1928	980	1936	633
1929	1,353	1937	1,092
1930	2,872	1938	1,124
1931	1,936	1939	714
1932	1,022	1940	747
1933	878	1941	711
1934	1,203	1942	3,509
1935	924	1943	3,237

EPIDEMIC DIARRHOEA.

155 notifications were received of which seven were found on investigation not to be suffering from this disease. This left a balance of 148 cases (as compared with 227 in 1942). Of these 148 thirty could not be traced. Each year there has been a number of such cases the cause of which has been found to be the tendering of false names and addresses by the parents of the affected children when bringing them to the doctor. The great bulk of these notifications are received from Dispensary medical officers and in this manner the parents appear on occasion to be exercising a certain amount of freedom in the choice of doctor. In the ordinary way the mother would consult the medical officer of the district in which she resides but in these cases they bring the affected children to the doctor of their choice and give some address in the district of that doctor.

The number of deaths recorded during the year (52) was actually the same as in the previous year and consequently yielded a higher fatality rate—35 per cent. as compared to 22.9 per cent. Of these 52 deaths, 50 occurred among children under 1 year of age, a circumstance which emphasises the more serious character of the disease when it affects younger children. The fatality rates in the two groups were 60.7 per cent. and 3.2 per cent. respectively. The former figure reveals the deadly nature of this disease as it occurs in young infants and it is a matter of some importance to emphasize the fact that of these 52 recorded deaths in every instance the victim was being bottle-fed at the outset of the disease. *There was not a single death from diarrhoea during the year among infants who were being fed at the breast.* This is a matter which I have been stressing year after year and one which seems likely to require hammering away at for many years to come in order to instil into the minds of those responsible the absolute necessity for insisting on natural feeding whenever it is possible.

The part which this disease played in the total infant mortality rate (i.e. all deaths of infants under one year) is discussed in the appropriate section and it will suffice now to mention that it was second on the list of causes. One feature of the disease is that the cases were distributed over the year somewhat more evenly than in 1942 (when the great bulk of them were accounted for by an explosive outbreak of the disease in late July, August and September). In 1943 also there was a definite increase in the incidence during these months which is, of course, what one expects but the balance of the cases were more widely distributed. This distribution is shewn in the following table.

Month	Cases	Deaths	Month	Cases	Deaths
Jan. ...	3	3	July ...	24	4
Feb. ...	3	3	Aug. ...	36	6
March ...	8	4	Sept. ...	36	7
April ...	1	4	Oct. ...	21	6
May ...	5	7	Nov. ...	3	2
June ...	7	1	Dec. ...	4	5

A curious feature of the disease in 1943 was in regard to the *deaths*. Whereas in the previous year they were distributed more or less in accordance with the occurrence of *cases*, last year they were distributed evenly throughout the year as follows.

The distribution according to *quarters* was as follows:—

	Cases	Deaths
1st Quarter ...	14	10
2nd „ ...	13	12
3rd „ ...	93	17
4th „ ...	28	13

This distribution affords evidence that many of the cases which occurred were not true epidemic or “summer” diarrhoea but were due to enteritis caused by unsuitable artificial feeding. It has been pointed out in previous reports that this tendency to even distribution was becoming

more marked of late years (although 1942 was an exception) with a bias for the warmer months of August and September. Of the 118 cases *traced* and investigated 108 (over 91 per cent.) were artificially fed. These figures, in conjunction with those of the previous eight years are shewn in the following table.

Year	Number of Cases according to Manner of Feeding			Cases Untraced	Total
	Breast	Cow's Milk	Dried Milk		
1935	18	128	6	26	178
1936	7	198	5	16	261
1937	18	204	8	51	246
1938	14	108	5	15	142
1939	9	148	13	27	197
1940	13	202	9	62	286
1941	4	173	6	35	218
1942	11	168	24	24	227
1943	10	90	18	30	148
Totals ...	104	1419	94	286	1903

Over the period of nine years covered by this table it will be seen 1617 cases were investigated of whom 94 per cent. were bottle fed. These figures do not pretend to absolute accuracy and since we do not know the actual numbers of children at risk in each group we cannot postulate the relative danger of each method of feeding but taken by and large, the evidence is clear enough that any child subjected to artificial feeding is greatly imperilled thereby and further it can be stated that when artificial feeding is adopted the danger is very much greater when cow's milk is employed. This no doubt is due to faulty methods in preparing feeds and unhygienic conditions generally in the homes. There seems to be much greater risk from cows milk than from dried milk. Considering the better nutritive value of the former this is unfortunate, but taking facts as we find them we are forced to the conclusion that, in the hands of the average mother, ordinary cow's milk is a highly dangerous article.

In last year's report reference was made to the relationship of temperature and rainfall to the occurrence of diarrhoea. The figures for 1943 have been added to those collected for the previous ten years and appear below. The following extract introduced the discussion.

It will be noted that the great bulk of cases and deaths occurred in the third quarter and during the months of August and September—a characteristic feature of epidemic enteritis. It has long been known that the temperature curve and the mortality curve from epidemic diarrhoea follow each other closely and it has been shewn that the wave of mortality in the larger cities begins to rise only when the 4-foot earth thermometer reaches a mean of 56°F. Thereafter the two curves follow each other closely, the highest mortality occurs in the third quarter, but the fall is usually prolonged far into the fourth. These features are well marked in the above figures and an examination of the appropriate tables in the meteorological section (*q.v.*) has yielded interesting confirmation of the generalisation referred to. The climatic conditions which most favour epidemics of infantile diarrhoea are prolonged hot and dry weather which favour the development of flies in large numbers and the spread of dust. It will be noted from the figures which follow that the latter circumstance is not an essential condition for it will be recalled that August, 1942, was an exceptionally wet month. In considering this matter it was decided to examine the relevant figures for a number of years. They are set out as follows :—

MEAN TEMPERATURES.

Year	July	Aug.	Sept.
1933	63.7	62.6	60.1
1934	60.0	54.5	55.0
1935	60.0	58.5	55.0
1936	57.0	62.0	53.0
1937	61.0	61.0	55.0
1938	58.2	60.1	57.0
1939	59.3	62.0	58.1
1940	59.5	55.0	57.5
1941	57.5	61.0	58.5
1942	60.0	62.6	56.4
1943	56.1	59.4	55.6
Average Mean Temp.	57.8	59.6	56.5

MONTHLY RAINFALL (in inches).

	July	Aug.	Sept.
1933	2.00	1.64	1.58
1934	2.20	3.31	5.98
1935	0.50	2.68	6.80
1936	5.67	0.58	2.88
1937	3.21	1.68	3.01
1938	3.97	1.85	2.17
1939	4.20	1.58	1.65
1940	2.39	0.22	1.19
1941	2.33	2.06	1.34
1942	2.25	4.10	1.86
1943	1.94	3.02	3.84
Average Rainfall ...	2.40	2.49	3.34

In the following table are shewn the numbers of cases and deaths from diarrhoea which have occurred in the City since 1907, the year in which the disease was first made notifiable here. The *morbidity* rate is based on the number of cases notified in proportion to the population, the *mortality* rate on the number of deaths per 1,000 of the population while the *case fatality* rate represents the deaths registered per 100 cases notified.

Table 19.—Epidemic Diarrhoea. Return of Cases notified and Deaths registered, together with the Mortality, Morbidity and Case-fatality Rates arising therefrom.

Year	No. of Cases	Rate per 1000 Population (Morbidity)	DEATHS		
			Number Recorded	Mortality Rate	Case Fatality Rate*
1907	413	5.42	48	0.63	11.1
1908	524	6.85	79	1.03	15.0
1909	514	6.72	54	0.71	10.3
1910	159	2.07	34	0.44	21.3
1911	352	4.56	78	1.01	22.1
1912	71	0.92	18	0.23	25.3
1913	320	4.13	114	1.48	35.6
1914	188	2.43	67	0.86	35.6
1915	177	2.29	49	0.63	27.6
1916	139	1.79	35	0.45	25.1
1917	83	1.07	34	0.43	40.9
1918	121	1.55	40	0.51	33.0
1919	85	1.09	40	0.51	47.0
1920	54	0.69	22	0.28	40.7
1921	105	1.35	1	0.01	0.94
1922	19	0.24	—	—	—
1923	35	0.44	24	0.30	68.5
1924	30	0.38	10	0.12	33.3
1925	142	1.81	45	0.58	31.6
1926	108	1.37	53	0.67	49.1
1927	76	0.96	24	0.30	31.5
1928	79	1.00	28	0.35	35.4
1929	78	0.98	25	0.31	32.0
1930	59	0.74	37	0.46	62.7
1931	85	1.06	34	0.42	40.0
1932	178	2.22	46	0.57	27.8
1933	189	2.35	45	0.56	23.8
1934	80	0.99	36	0.44	45.0
1935	178	2.21	56	0.69	31.4
1936	261	3.23	41	0.50	15.7
1937	246	3.04	52	0.64	21.1
1938	142	1.76	33	0.41	23.2
1939	197	2.44	39	0.48	19.8
1940	286	3.54	52	0.64	18.4
1941	218	2.85†	36	0.46†	16.5
1942	227	2.95	52	0.68	22.9
1943	148	2.00	52	0.68	35.1

* The *fatality rates* in this table must be read with extreme caution. The fluctuation from year to year is so extreme that it is apparent that notification must have been very defective in the years with abnormally high rates. It is obvious, nevertheless, that this is a most fatal disease of early childhood and the figures lend point to the remarks which have been made above in regard to the prime contributory cause.

TYPHOID FEVER

For the second year in succession there was no case of this disease. This is the third occasion in which the city has been free from typhoid for the whole period of the year, the two other periods being 1942 and 1930. In 1942 there was a minor localised outbreak and apart from this the average incidence of the disease has been quite small for the past fifteen years. The figures for incidence and the fatality rates are set out in table 20

† Rates from this year are based on Register of Population 1941.

Table 20.—Incidence and Case Fatality of Enteric Fever in Cork City from 1881.

Year	Cases	Incidence per 1,000	Deaths	Fatality Rate
1881	66	0.82	4	6.5
1882	37	0.46	4	10.8
1883	45	0.56	11	24.4
1884	48	0.61	13	27.0
1885	43	0.55	9	20.9
1886	180	2.57	42	23.3
1887	100	1.30	20	20.0
1888	66	0.86	9	13.6
1889	37	0.48	9	24.3
1890	113	1.50	12	10.6
1891	165	2.33	17	10.3
1892	104	1.37	17	18.3
1893	78	1.03	14	17.9
1894	43	0.57	13	30.2
1895	132	1.74	16	12.1
1896	94	1.00	24	25.5
1897	51	0.70	9	17.6
1898	62	0.81	13	20.9
1899	47	0.62	8	17.0
1900	50	0.70	5	10.0
1901	51	0.67	5	9.8
1902	49	0.64	5	10.2
1903	27	0.35	5	18.5
1904	50	0.64	8	16.0
1905	58	0.76	8	13.8
1906	48	0.66	5	10.4
1907	44	0.57	4	9.1
1908	88	1.02	16	18.2
1909	74	0.95	15	20.2
1910	54	0.70	13	24.0
1911	32	0.41	5	15.6
1912	26	0.33	6	23.0
1913	29	0.38	6	20.7
1914	50	0.64	4	8.0
1915	32	0.41	5	15.6
1916	42	0.54	6	14.3
1917	43	0.55	3	6.9
1918	42	0.54	8	19.0
1919	12	0.15	1	8.3
1920	244	3.13	13	5.3
1921	21	0.26	4	19.0
1922	6	0.07	2	33.3
1923	7	0.09	1	14.2
1924	11	0.14	2	18.1
1925	27	0.34	5	18.5
1926	11	0.14	2	18.2
1927	10	0.12	2	20.0
1928	17	0.21	2	11.7
1929	6	0.08	1	16.6
1930	—	—	—	—
1931	1 (a)	0.01	1	100.0
1932	1 (a)	0.01	1	100.0
1933	2 (a)	0.02	—	(b)
1934	1	0.01	—	—
1935	3	0.03	—	—
1936	2	0.02	—	—
1937	1	0.01	—	—
1938	3 (a)	0.03	1	33.3
1939	7	0.08	—	—
1940	2	0.02	—	—
1941	12	0.15	—	—
1942	—	—	—	—
1943	—	—	—	—

(a) Infection in all these cases was incurred outside the City.

(b) Two deaths were recorded in Cork Mental Hospital (Co. Area) of inmates who formerly resided in the City

SCARLET FEVER.

76 cases were reported. There was no death.

TYPHUS.

For the fourteenth year in succession there has been no case. As a matter of interest the table relative to this disease, first published in 1935, is reproduced in this report.

Table 21.—Incidence and Case Fatality of Typhus Fever in Cork City from 1881.

Year	Cases	Incidence per 1,000	Deaths	Fatality Rate
1881	1406	17.42	88	6.2
1882	683	8.57	54	7.9
1883	844	10.66	46	5.4
1884	456	5.65	37	8.1
1885	159	2.03	21	3.2
1886	83	1.06	17	18.0
1887	67	0.86	12	17.9
1888	72	0.93	21	27.7
1889	48	0.63	5	10.4
1890	54	0.71	7	12.9
1891	24	0.30	5	20.8
1892	162	2.28	23	14.1
1893	92	1.20	7	7.6
1894	25	0.33	2	8.0
1895	29	0.38	8	31.0
1896	22	0.29	7	31.8
1897	30	0.39	3	10.0
1898	61	0.80	11	18.0
1899	9	0.10	6	66.6
1900	28	0.36	4	14.3
1901	13	0.17	2	15.38
1902	6	0.07	—	—
1903	7	0.09	—	—
1904	11	0.14	1	9.1
1905	9	0.11	2	22.2
1906	6	0.07	4	66.6
1907	10	0.13	6	60.0
1908	23	0.30	6	26.1
1909	18	0.24	5	27.7
1910	8	0.10	3	37.5
1911	10	0.13	—	—
1912	1	0.01	—	—
1913	5	0.06	2	40.0
1914	1	0.01	1	100.0
1915	—	—	—	—
1916	1	0.01	1	100.0
1917	3	0.04	1	33.3
1918	1	0.01	1	100.0
1919	15	0.19	3	20.0
1920	2	0.03	—	—
1921	1	0.01	1	100.0
1922	—	—	—	—
1923	1	0.01	1	100.0
1924	1	0.01	—	—
1925	—	—	—	—
1926	3	0.04	1	33.3
1927	4	0.05	—	—
1928	1	0.01	—	—
1929	1	0.01	1	100.0

There has been no case since 1929.

SCABIES.

The provisions of the Public Health (Infectious Diseases) Regulations, 1941 were made applicable to this condition by special regulations made by the Minister for Local Government and Public Health on 19th October 1943 under title of Public Health (Infectious Diseases) (Amendment) (No. 2) Regulations, 1943, the effect of which was to make the condition notifiable. It was apparent for some considerable time that there had been a widespread increase of the disease and, at the request of the City Manager, I made a special report on the matter on 27th October 1943. The following is the substance of that report :

SCABIES (Itch)

This disease has now assumed serious proportions and, while it is not possible to produce accurate figures, those which are available give us some idea of its prevalence. Two nurses were appointed in March last to ease the pressure on the school medical service (the ordinary work of which was being completely upset by the demand made on it by these cases of scabies). The special sessions started operating in the last week in March and since that time the number of cases treated is as follows :—

School Children	...	...	...	977
" " (re-infected)	...	...	...	187
Pre-school Children	...	...	...	309
Parents	...	...	...	560
Other adults	...	...	...	516
		Total	...	<hr/> 2,549 <hr/>

The individual attendances at the clinic here amounted to 6,933 and it was necessary to make 1,203 visits to homes of children who had failed to complete their treatment. In addition to the above cases, there were 238 others who, I am informed by Dr Goold, were admitted to the wards of the District Hospital during the half year ended 30th September last. Many more would have been admitted could accomodation have been provided.

It is apparent from these figures that the condition is very widespread. This increase in itch is by no means confined to this area, nor has it been of recent origin. It was noted in England some considerable time before the present war and from the references in medical literature it is apparent that the whole of that country has become affected. So serious has the position become in this country that the Minister of Local Government and Public Health has taken the step of declaring it to be a notifiable infectious disease. The figures which will be forthcoming from such notification should afford some idea of the real magnitude of the problem.

In the strict sense of the word scabies can scarcely be called an infectious disease. It is due to the activities of a tiny mite. The female

insect burrows into the skin causing great itching and some rash. She lays her eggs in the burrow where they hatch. The young insect then commences to burrow afresh in other directions. The most usual place for the itch to begin is the spaces between the fingers. The front of the wrist is also a common site. If the condition is not treated the disease spreads to other parts of the body. The intense itching caused by the insects leads to scratching which in turn brings about secondary infection with micro-organisms with resultant boils, pimples and abscesses. These latter represent the most serious and difficult cases. There is a ridiculous (but unfortunately widespread) belief that the rash is due to the so-called "war bread". This is an idea which must be dissipated. It has nothing whatever to do with food and, as pointed out above, the disease has made its appearance in epidemic form long before the war commenced.

Scabies is not infectious in the sense that, say, diphtheria or measles is. It is classed among the contagious diseases, that is to say, there must be actual skin to skin touch or contact before it can spread from one person to another. Consequently we find that it is almost invariably through sleeping in the same bed with an infected person that an uninfected individual acquires it. Hence it is that the disease is most common where conditions of poverty and overcrowding prevail. A knowledge of these elementary facts is necessary to an understanding of the measures for dealing with the disease. It explains, for example, the necessity for early treatment and the necessity for treating whole families at the same time if re-infection is to be prevented.

In the early stages the disease may be easily cured: when it becomes advanced the cure is extremely difficult. It is for this reason that the ordinary medical services have entirely failed to cope with it and that it is now necessary to take special measures. These measures resolve themselves into the provision of adequate cleansing facilities with medical treatment on a scale to deal with the great number of cases. Fortunately we have remedies at our disposal which will cure uncomplicated cases very rapidly if applied under proper supervision, but which necessitate a thorough cleansing of the whole body beforehand. These remedies cannot be applied at home in cases where there is no bath and even where there is a bath they are often best applied under skilled medical supervision. In complicated cases (i.e. secondary infection, boils, abscesses, etc.) medical supervision is essential.

Suitable premises will have to be found. Such do not appear to be available ready to hand. I have been informed that negotiations in this regard have fallen through and it has been necessary to draft plans for a new building. This will delay putting any scheme into effect, but I think it will be much better in the long run as it will enable us to run it much more efficiently and economically. It is not possible to say how long the necessity of the building for this special purpose will remain, but, on the basis of English experience, it is reasonable to say some years at least. After that time it might subserve a very useful purpose indeed in the way of providing cleansing facilities for people with no baths of their own.

I have had a consultation with the City Engineer and examined a plan which with certain alterations should serve the necessary purpose. As regards personnel I consider that the following staff will be necessary :—

- 1 Medical Officer.
- 1 Recording Clerk.
- 2 Nurses
- 2 Female Attendants.
- 1 Male Supervisor.
- 2 Male Attendants.
- 1 Cleaner.
- 1 Porter.

(The Report ends here).

Suitable premises were subsequently acquired. These were formerly the Turkish Baths and, (at the time of writing) they have been in commission for some weeks. Considerable delay and difficulty were experienced in obtaining necessary supplies but these were eventually overcome and the treatment centre is now in full working order. It comprises two sections (for males and females respectively) each equipped with a series of cubicles providing hot and cold showers for bathing purposes. In addition the female side is provided with three raised sinks for washing babies. The procedure is that each person is first thoroughly washed with soap and water, the body is then dried and covered all over with the special emulsion employed for treatment. The patient returns four days later for a second application which completes the treatment. This regimen has proved completely successful in the vast majority of cases, the patients being rid of the intolerable itches characteristic of the disease.

It will have been apparent that the very need for creating a machinery of this character is evidence in itself of the widespread and serious character of the disease. The organisation as it now stands is quite capable of dealing with the situation and it only needs that it be availed to full to get rid of the condition. It is evident however that there are many people who will not avail of such facilities, and others who will not avail of them to the full. Already there have been numerous instances in which affected persons who attended the centre on one occasion failed to do so on the second thus rendering the treatment nugatory. This, unfortunately, has been our experience only too often in other departments in which public services are provided by the municipal authority, certain sections will simply not avail of them. In dealing with a disease such as scabies half measures are worse than useless and one has no hesitation whatever in recommending the adoption of drastic measures of compulsion, should the occasion arise. Why should people who are too indolent to rid themselves of this disease be permitted to mix freely with the rest of the population and spread the infection broadcast? Why should children be allowed to attend school and infect the children of parents who go to the trouble to keep up a decent standard of cleanliness? There is, of course, no answer to such questions. They raise the whole problem of the moral obligation on the state to provide a clean healthy environment for the children whom it compels to attend school. Our immediate concern is the elimination of scabies as a public health problem and if this fails through lack of use of the facilities provided the case for compulsory treatment becomes clearly established.

The provisions of the Regulations as regards notification were put into effect on 1st Nov., from this date to 31st December 558 notifications were received up to the time of writing a further 1,588 notifications have been received, making a total of 2,146 cases officially reported. This is probably but a small proportion of all the cases in the area. As is shewn above we had records of no less than 2,549 cases before notification came into effect. So far 2,035 cases have been treated at the Centre.

VACCINATION.

The position in relation to the occurrence of cases of smallpox in Great Britain was fully discussed in last year's report, in connection with which matter a table was compiled showing the state of this and other areas in regard to vaccination, the figures of which were obtained from the Yearly Summaries of the Registrar General. This table is now brought up to date. The data give cause for uneasiness.

Year	CORK			DUBLIN			LIMERICK			WATERFORD		
	Births	Vaccinations	Proportion	Births	Vaccinations	Proportion	Births	Vaccinations	Proportion	Births	Vaccinations	Proportion
1936	1,921	1,833	95%	11,582	3,903	34%	975	622	64%	661	54	8%
1937	1,706	1,898	110%	11,652	3,199	27%	1,006	672	67%	696	71	10%
1938	1,761	1,532	87%	11,534	4,076	35%	1,030	579	55%	626	27	4%
1939	1,632	1,591	97%	11,384	3,051	27%	1,073	596	55%	614	16	3%
1940	1,670	1,050	63%	11,064	2,700	24%	984	601	61%	677	43	6%
1941	1,753	1,138	65%	11,305	3,412	30%	1,007	558	55%	613	30	5%
1942	1,706	1,065	62%	12,528	3,517	28%	1,115	763	68%	807	47	6%
1943	1,781	1,233	69%	12,673	2,005	15%	1,075	748	69%	737	58	7%

Table 22.—Yearly Summary of Infectious Diseases from 1879.

Year	Small Pox	Typhus	Typhoid or Enteric Fever	Simple Continued Fever	Scarlatina	Puerperal Fever	Membranous Croup	Diphtheria	Erysipelas	Measles	Diarrhoea	Chicken Pox	Cerebro-Spinal Meningitis	Poliomyelitis	Encephalitis Lethargica	Pneumonia	
																Acute Primary	Acute Influenza
1879	—	337	91	335	386	—	—	2	30	269	107	—	—	—	—	—	—
1880	—	756	117	420	616	—	—	9	37	282	48	—	—	—	—	—	—
1881	—	1406	66	364	103	—	—	—	31	240	5	—	—	—	—	—	—
1882	—	683	37	239	25	—	—	3	11	146	3	—	—	—	—	—	—
1883	—	844	45	164	105	—	—	6	—	109	1	—	—	—	—	—	—
1884	—	456	48	221	158	—	—	2	14	106	3	—	—	—	—	—	—
1885	1	159	43	94	143	—	—	2	17	35	—	—	—	—	—	—	—
1886	—	83	180	70	86	—	—	1	14	24	—	—	—	—	—	—	—
1887	—	67	100	46	17	—	—	4	25	182	1	—	—	—	—	—	—
1888	—	72	66	40	55	—	—	7	25	232	—	—	—	—	—	—	—
1889	—	48	37	24	90	—	—	9	12	—	—	—	—	—	—	—	—
1890	—	54	113	36	128	5	3	20	27	3	2	—	—	—	—	—	—
1891	1	24	165	46	64	3	3	37	27	2	—	—	—	—	—	—	—
1892	1	162	104	53	19	—	3	11	45	74	1	—	—	—	—	—	—
1893	—	92	78	26	91	3	—	18	70	4	2	—	—	—	—	—	—
1894	—	25	43	29	301	5	6	14	65	11	2	—	—	—	—	—	—
1895	—	29	132	23	53	3	1	6	45	2	—	—	—	—	—	—	—
1896	—	22	94	29	69	6	—	7	54	3	2	—	—	—	—	—	—
1897	—	30	51	23	34	7	4	21	35	9	—	—	—	—	—	—	—
1898	—	61	62	30	30	6	7	18	20	2	—	—	—	—	—	—	—
1899	—	9	47	14	22	2	10	18	60	23	—	—	—	—	—	—	—
1900	—	28	50	27	401	2	2	23	36	—	—	—	8	—	—	—	—
1901	—	13	51	29	288	3	12	26	38	—	—	—	8	—	—	—	—
1902	—	6	49	16	119	4	1	8	49	8	—	7	3	—	—	—	—
1903	3	7	27	16	51	2	6	17	58	5	—	49	1	—	—	—	—
1904	1	11	50	33	29	4	3	29	43	2	—	39	4	—	—	—	—
1905	1	9	58	47	35	7	8	18	50	7	—	33	4	—	—	—	—
1906	—	6	48	31	23	10	1	37	48	8	—	49	3	—	—	—	—
1907	—	10	44	44	50	6	4	37	42	4	413	63	8	—	—	—	—
1908	—	23	88	55	114	4	6	40	26	379	524	14	1	—	—	—	—
1909	—	18	74	42	119	10	4	66	25	44	514	21	—	—	—	—	—
1910	—	8	54	24	38	4	6	51	26	14	159	16	—	—	—	—	—
1911	—	10	32	22	39	4	13	70	31	433	352	1	1	—	—	—	—
1912	—	1	26	17	93	6	5	52	29	53	71	7	—	—	—	—	—
1913	—	5	29	13	81	4	10	24	28	254	320	2	—	—	—	—	—
1914	—	1	50	12	230	11	15	54	38	161	188	8	—	—	—	—	—
1915	—	—	32	4	245	2	8	68	44	160	177	10	6	—	—	—	—
1916	—	1	42	9	112	8	11	43	41	86	139	13	6	—	—	—	—
1917	—	3	43	6	46	1	9	26	24	28	83	8	3	—	—	—	—
1918	—	1	42	10	21	2	18	34	16	750	121	19	4	—	—	—	—
1919	—	15	12	3	16	4	21	262	18	3	85	26	2	—	—	—	37
1920	—	2	244	8	70	6	3	428	18	9	54	30	—	—	—	—	—
1921	—	—	21	1	14	4	8	541	17	2	105	28	—	—	—	—	—
1922	—	—	6	—	29	1	5	379	14	324	19	29	—	—	—	—	—
1923	—	1	7	1	44	1	4	440	45	10	35	30	—	—	—	—	—
1924	—	1	12	—	41	3	3	217	30	5	30	54	—	—	—	—	—
1925	—	—	27	—	81	4	9	265	35	94	142	117	—	—	1	—	5
1926	—	4	11	2	278	4	11	469	34	534	108	59	—	—	1	—	—
1927	—	4	10	1	205	14	11	344	25	7	76	76	1	1	3	—	—
1928	—	1	17	—	208	7	15	385	24	6	79	64	1	—	—	—	12
1929	—	1	6	—	216	6	4	369	24	226	78	80	—	—	2	—	7
1930	—	—	—	1	238	6	5	588	38	241	59	72	—	—	1	—	3
1931	—	—	1	—	98	1	1	288	19	3	85	71	1	—	1	49	41
1932	—	—	1	—	80	9	1	85	13	242	178	99	—	—	2	28	7
1933	—	—	2	—	181	9	—	109	24	49	189	79	—	—	1	3	2
1934	—	—	1	—	118	10	—	109	28	126	80	158	—	—	—	2	1
1935	—	—	3	—	52	11	1	56	24	300	178	53	—	—	—	5	2
1936	—	—	2	—	437	12	1	24	18	233	261	69	—	—	—	14	14
1937	—	—	1	—	454	6	—	79	26	88	246	218	5	1	—	21	45
1938	—	—	3	—	228	1	—	54	18	12	142	83	14	—	—	19	3
1939	—	—	7	—	158	4	—	41	31	3	197	28	1	—	—	14	1
1940	—	—	2	—	143	1	—	52	23	1613	286	52	2	1	1	27	1
1941	—	—	12	—	42	1	—	62	29	94	218	254	2	—	—	21	1
1942	—	—	—	—	50	—	—	372	38	1	227	65	2	—	—	32	2
1943	—	—	—	—	76	2	—	326	45	6	148	47	3	—	—	35	2

OTHER INFECTIOUS DISEASES

Notifications in regard to other infectious diseases during the year were as follows :—

Erysipelas ...	...	...	...	45
Acute Primary Pneumonia	...	...	...	35
Acute Influenzal Pneumonia	...	...	...	36
Varicella ...	...	...	...	47
Cerebro Spinal Fever	...	...	...	3
Whooping Cough	...	...	...	36
Scabies ...	...	...	...	558

Particulars of Articles Disinfected during the year.

	Bed Ticks	Mat- tresses	Articles of Bedding	Articles of Wearing Apparel	Miscel- laneous Articles	Total No. of Articles
January ...	16	53	410	43	57	579
February ...	15	47	508	37	28	635
March ...	8	63	487	95	41	694
April ...	6	63	319	12	26	426
May ...	7	49	379	30	43	508
June ...	7	45	276	15	36	379
July ...	7	49	239	21	18	334
August ...	7	27	214	24	29	301
September ...	5	42	302	49	37	435
October ...	4	23	197	33	32	289
November ...	4	45	283	73	45	450
December ...	5	39	253	23	20	340
	91	545	3,867	455	412	5,370

Section III.—Tuberculosis

The death rate from pulmonary tuberculosis for the year was 1.38 per 1,000 of the population. The following table shows the death-rates each year from 1891 to the present time.

Table 23.—Deaths and Death Rates Pulmonary Tuberculosis.

Year	No. of Deaths	Rate per 1,000 pop.	Year	No. of Deaths	Rate per 1,000 pop.
1891	295	3.93	1917	202	2.63
1892	303	4.04	1918	187	2.43
1893	314	4.18	1919	156	2.04
1894	296	3.94	1920	159	2.07
1895	261	3.48	1921	125	1.64
1896	299	3.98	1922	176	2.30
1897	260	3.46	1923	130	1.64
1898	283	3.77	1924	164	2.09
1899	320	4.26	1925	134	1.71
1900	281	3.74	1926	126	1.60
1901	289	3.80	1927	129	1.60
1902	287	3.79	1928	109	1.39
1903	279	3.67	1929	141	1.79
1904	352	4.63	1930	114	1.45
1905	294	3.86	1931	124	1.56
1906	261	3.43	1932	111	1.40
1907	278	3.65	1933	106	1.35
1908	245	3.22	1934	104	1.34
1909	264	3.47	1935	115	1.46
1910	233	3.06	1936	85	1.06
1911	252	3.29	1937	96	1.20
1912	231	3.01	1938	99	1.21
1913	202	2.62	1939	86	1.06
1914	231	3.01	1940	96	1.17
1915	211	2.88	1941	86	1.12
1916	189	2.46	1942	103	1.38
			1943	107	1.38

As will be noted from the above table there was practically speaking no increase in the number of deaths from the pulmonary form of the disease. Reference to table 24 however shews an increase of five in deaths from the non-pulmonary form. The combined figures represent an increase of 6.9 per cent. over the 1943 figure. This may not be regarded as being very material but it must be remembered that the figures for the current year are 22.6 per cent over those for the year 1941. It may be that a check has been imposed on the upward trend so characteristic of war periods. For the past 12 years the disease has assumed a somewhat stationary character in this area with a slight downward tendency. This tendency was accentuated in 1936 when the figure reached unity for the first time, but it will be noted that there are two sharp rises before that of 1942

which occurred in the pre-war years. The Annual Report of the Registrar General, 1942 shews a definite upward tendency for the country as a whole which first made its appearance in the figures compiled for the year 1939 (which included the first four months of the war). This rise was too soon after the outbreak of hostilities to be accounted for by that event. It rose somewhat sharply during 1940, but there was a slight decline the next year followed by a steep rise in 1942. The graph for England and Wales shows a rise in 1940 and 1941 followed by a decline in 1942. The preliminary figures for 1943 for the whole country (See Annual Summary, Registrar General) indicate a figure of 1.2 per 1,000 as the tuberculosis death rate which is a slight decrease on the figure 1.47 per 1,000 for the previous year. There may therefore be a downward tendency now becoming apparent but it is still too early to make any prognostications of this character. The number of deaths and the death rates from the non-pulmonary forms of tuberculosis are shewn in the next table and the effect of combining the two sets of figures (pulmonary and non-pulmonary) in table 25.

Table 24.—Deaths and Death Rates from *non-pulmonary* Tuberculosis.

Year	No. of Deaths	Rate per 1,000 pop.	Year	No. of Deaths	Rate per 1,000 pop.
1906	81	1.06	1925	31	0.39
1907	84	1.10	1926	46	0.58
1908	93	1.08	1927	35	0.44
1909	78	1.02	1928	29	0.36
1910	75	0.97	1929	17	0.21
1911	73	0.95	1930	25	0.31
1912	71	0.92	1931	46	0.57
1913	79	1.02	1932	45	0.56
1914	79	1.02	1933	19	0.24
1915	72	0.93	1934	21	0.25
1916	69	0.89	1935	29	0.36
1917	78	1.00	1936	20	0.25
1918	75	0.96	1937	24	0.29
1918	58	0.74	1938	13	0.16
1920	46	0.59	1939	14	0.17
1921	34	0.43	1940	29	0.35
1922	39	0.50	1941	20	0.26
1923	32	0.40	1942	18	0.24
1924	32	0.40	1943	23	0.30

Table 25.— Combined Deaths and Death rates from Pulmonary and Non-pulmonary Tuberculosis.

Year	Pulmonary Deaths	Non-pulmonary Deaths	Total	Rate per 1,000 pop.
1906	261	81	342	4.49
1907	278	84	362	4.74
1908	245	93	338	4.42
1909	264	78	342	4.47
1910	233	75	308	4.01
1911	252	73	325	4.23
1912	231	71	302	3.92
1913	202	79	381	3.64
1914	231	79	310	4.02
1915	211	72	383	3.66
1916	189	69	258	3.33
1917	202	78	280	3.61
1918	187	75	262	3.37
1919	156	58	214	2.75
1920	159	46	205	2.64
1921	125	34	159	2.03
1922	176	39	215	2.75
1923	130	32	162	2.05
1924	164	32	196	2.50
1925	134	31	165	2.10
1926	126	46	172	2.18
1927	129	35	164	2.08
1928	108	29	138	1.74
1929	141	17	158	2.00
1930	117	25	142	1.78
1931	124	46	170	2.13
1932	111	45	156	1.95
1933	106	19	125	1.56
1934	107	21	128	1.59
1935	115	29	144	1.78
1936	85	20	105	1.29
1937	96	24	120	1.48
1938	99	13	112	1.38
1939	86	14	100	1.23
1940	96	29	125	1.54
1941	86	20	106	1.38
1942	106	18	124	1.57
1943	107	23	130	1.69

An examination of the causes of the 23 deaths attributed to non-pulmonary tuberculosis yields the following figures.

Tuberculous meningitis	16
Peritonitis	2
Tuberculous glands	1
Abdominal Tuberculosis	1
Bones and Joints	1
Skin	1
Central Nervous System	1

The preponderant role of meningitis is very obvious. A further examination of the figures brings out this feature in a very marked degree as is seen in the next table.

Table 26.—Classification of Deaths from non-pulmonary Tuberculosis

Cause of Death	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
Meningitis... ..	9	10	10	12	10	12	8	6	15	10	9	16
Peritonitis	4	4	—	3	3	2	—	3	7	2	2	2
Bones and Joints ...	4	3	2	4	4	4	2	1	2	5	1	1
Genito-urinary ...	3	1	1	1	—	—	—	1	2	2	2	—
Abdominal	4	—	—	3	2	2	—	1	—	1	1	1
Generalised Tuberculosis ...	6	1	5	3	—	1	2	1	—	1	1	—
Glands	—	1	2	—	1	1	—	—	1	—	—	1
Addison's Disease ...	—	—	1	2	—	2	—	1	1	—	2	—
Skin	2	—	—	—	—	—	1	—	1	—	—	1
Miscellaneous ...	3	—	—	1	—	—	—	—	—	—	—	1
Totals	35	20	21	29	20	24	13	14	29	21	18	23

Table 27.—Deaths from Pulmonary Tuberculosis distributed according to sex and age groups.

Year	Sex	All Ages	Under 1 year	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
1923	M	70	—	2	4	16	12	17	14	4	1
	F	66	—	2	4	13	19	14	8	4	2
1924	M	80	—	2	1	13	16	20	16	9	3
	F	73	—	—	2	17	23	16	7	5	3
1925	M	59	1	3	2	10	17	15	8	3	—
	F	77	1	2	5	23	20	13	6	4	3
1926	M	65	1	2	4	14	14	16	7	5	2
	F	60	—	—	5	11	19	12	9	2	2
1927	M	62	1	1	1	1	15	22	10	4	1
	F	72	—	4	3	16	18	16	10	4	1
1928	M	49	—	1	1	11	10	11	10	4	1
	F	67	—	1	4	15	21	12	7	7	—
1929	M	65	—	2	—	16	14	16	11	2	4
	F	80	—	—	2	24	24	17	7	2	4
1930	M	58	—	—	1	16	16	14	9	2	—
	F	46	—	1	2	9	14	10	5	3	2
1931	M	62	—	1	—	12	16	11	13	8	1
	F	61	—	1	4	15	17	14	6	3	1
1932	M	58	—	—	1	7	22	15	8	4	1
	F	54	—	1	3	14	21	5	7	3	—
1933	M	52	—	—	—	8	17	14	11	1	1
	F	53	—	—	—	18	12	10	9	3	1
1934	M	53	—	—	2	6	13	16	12	3	1
	F	50	—	—	1	14	12	16	3	3	1
1935	M	58	1	1	—	10	9	20	13	4	—
	F	54	—	—	2	11	18	9	11	3	—
1936	M	38	—	—	2	7	11	15	8	5	—
	F	34	—	1	—	6	8	7	5	6	1
1937	M	56	—	—	—	9	10	13	13	8	2
	F	40	—	—	2	10	9	10	4	5	—
1938	M	61	—	—	—	12	12	13	17	4	3
	F	38	—	—	—	4	15	10	7	2	—
1939	M	53	—	—	1	10	6	13	16	6	1
	F	33	—	—	2	11	4	6	6	4	—
1940	M	48	—	—	—	12	9	10	9	8	—
	F	48	1	—	—	12	13	14	4	2	2
1941	M	46	—	—	—	8	11	12	9	6	—
	F	42	—	—	—	5	10	14	9	4	—
1942	M	61	—	—	1	9	13	12	15	5	5
	F	45	—	—	1	17	9	7	6	4	—
1943	M	61	—	1	—	4	15	14	14	9	4
	F	46	—	—	2	15	10	8	3	6	2

There are certain discrepancies between the figures in this table and those which appear in tables 23 to 25 inclusive. In the table above the figures from 1923 to 1936 inclusive are taken from the Annual Reports of the Registrar General for the appropriate years. Prior to 1929 the figures in tables 23 and 24 are taken from the records of this Department over a great number of years (see table 9). From 1937 onwards the figures are taken from the records of deaths compiled in the Department itself from the District Registrars' weekly returns. With the exception of one or two years the discrepancies are not very great and since the main object of such tables is to display the *trend* of deaths the conclusions which may be drawn from them are not vitiated to any material extent. Similar observations apply to the following table (in which deaths from non-pulmonary tuberculosis are arranged into age and sex groups) except that in this case all are compiled from the District Registrars' returns and accordingly may be said to represent the facts with a reasonable degree of accuracy. In the case of *non-pulmonary* tuberculosis, however, it is necessary to advert to the fact that there is reason to doubt the accuracy of some of the returns. The principal factor in non-pulmonary deaths is meningitis and it has been the practice to classify deaths under this heading as due to tuberculosis only when the certifying physician specifies "tuberculosis meningitis." One feels reasonably sure that a good many deaths certified simply as meningitis are probably tuberculosis in origin; but here again the important fact is that it is the *trend* which matters most.

Table 28.—Deaths from non-pulmonary Tuberculosis arranged into sex and age groups.

Year	Sex	All Ages	Under 1 year	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
1932	M	22	6	3	3	5	1	2	2	—	—
	F	13	—	1	1	2	5	—	2	2	—
1933	M	11	1	4	1	2	1	1	—	1	—
	F	9	3	1	4	—	—	—	1	—	—
1934	M	8	—	4	—	1	—	2	1	—	—
	F	13	2	4	1	2	2	1	1	—	—
1935	M	14	1	4	2	2	1	3	1	—	—
	F	15	—	4	3	1	2	4	—	1	—
1936	M	13	1	4	2	—	2	2	—	2	—
	F	7	3	1	—	2	—	1	—	—	—
1937	M	13	2	3	1	2	1	1	—	2	1
	F	11	—	3	2	1	2	1	—	—	2
1938	M	5	—	1	1	1	1	—	1	—	—
	F	8	—	2	2	—	—	2	—	—	2
1939	M	9	5	—	—	1	1	—	2	—	—
	F	5	4	—	1	—	—	—	—	—	—
1940	M	17	3	6	3	1	2	—	2	—	—
	F	12	1	2	2	1	1	1	2	1	1
1941	M	11	1	1	3	2	3	1	—	—	—
	F	10	1	2	2	2	—	1	—	2	—
1942	M	9	2	3	1	—	1	—	1	—	1
	F	9	1	3	—	2	—	—	1	1	1
1943	M	13	3	4	1	4	1	—	—	—	—
	F	10	—	5	2	1	—	1	—	—	1

Table 29.—Non-pulmonary tuberculosis. Analysis of certified deaths, shewing same distributed into sex and age-groups, from 1932 to 1943 inclusive.

Cause of Death	Sex	All Ages	Under 1 Yr.	1-5	5-15	15-25	25-35	35-45	45-55	55-65	65 and over
Meningitis ...	M	64	8	29	9	11	3	2	2	—	—
	F	63	11	23	16	7	3	3	—	—	—
Peritonitis ...	M	20	3	8	2	2	1	3	—	1	—
	F	12	2	2	—	2	1	3	1	—	1
Bone and Joint ...	M	15	—	1	3	3	3	2	1	2	—
	F	18	—	—	5	3	3	2	1	1	3
Genito-urinary ...	M	10	—	—	—	—	4	3	3	—	—
	F	3	—	—	—	—	1	1	1	—	—
Abdominal ...	M	8	—	3	1	1	1	—	1	1	—
	F	7	—	3	—	—	1	1	—	1	1
Generalised Tuberculosis ...	M	14	2	3	1	4	2	2	—	—	—
	F	7	1	1	—	—	2	1	1	1	—
Supra-renal Gland	M	6	—	—	—	1	1	—	2	1	1
	F	3	—	—	—	—	—	—	1	1	2
Miscellaneous ...	M	5	2	—	1	—	—	—	2	—	1
	F	12	—	3	—	1	—	2	2	1	2

Meningitis has been the chief cause of deaths in this group and it will be noted that the earlier years are the most affected. The other forms of non-pulmonary tuberculosis have been more evenly distributed.

A similar plan to that adopted in 1941 has been followed for the current year in examining the figures—an examination of the quarterly returns over a number of years. These are shewn in table 30.

Table 30—TUBERCULOSIS (all forms) Deaths and Death-rates (by quarters) for Éire and the four County Boroughs.

Year	Con- secu- tive Quar- ters	EIRE		CORK		DUBLIN		LIMERICK		WATERFORD	
		Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000	Deaths	Rate per 1000
1936	1	969	1.2	44	2.0	208	1.9	17	1.7	12	1.8
	2	989	1.3	22	1.2	213	1.8	19	1.9	17	2.6
	3	792	1.0	16	0.7	165	1.4	13	1.3	10	1.4
	4	730	1.0	24	1.2	153	1.3	8	0.8	5	0.7
1937	1	1040	1.4	43	2.0	247	2.1	19	1.8	13	1.9
	2	1031	1.4	35	1.8	209	1.8	18	1.7	13	1.9
	3	823	1.1	28	1.4	148	1.3	9	0.9	10	1.4
	4	745	1.0	10	0.6	143	1.2	14	1.4	8	1.1
1938	1	878	1.2	27	1.3	187	1.5	8	0.8	12	1.7
	2	892	1.2	44	2.2	164	1.3	12	1.2	14	2.0
	3	696	1.0	17	0.8	149	1.2	13	1.3	8	1.1
	4	750	1.0	26	1.3	193	1.6	12	1.2	3	0.4
1939	1	894	1.2	26	1.3	191	1.6	5	0.5	11	1.6
	2	944	1.3	30	1.4	198	1.6	17	1.7	16	2.3
	3	770	1.0	20	0.9	163	1.4	14	1.4	7	1.0
	4	693	0.9	20	1.0	164	1.4	14	1.4	1	0.1
1940	1	1000	1.4	42	2.1	254	2.1	23	2.3	19	2.7
	2	1107	1.5	33	1.6	230	1.9	25	2.4	11	1.5
	3	800	1.0	25	1.2	154	1.3	21	2.1	6	0.8
	4	693	0.9	28	1.3	151	1.2	14	1.4	3	0.4
1941	1	1028	1.4	25	1.2	226	1.9	16	1.6	13	1.9
	2	980	1.3	35	1.7	197	1.6	16	1.6	11	1.5
	3	832	1.1	21	1.0	158	1.3	16	1.6	10	1.4
	4	818	1.1	24	1.2	180	1.5	17	1.6	7	1.0
1942	1	1128	1.5	41	2.2	244	2.0	21	2.0	10	1.4
	2	1269	1.7	40	2.1	261	2.1	25	2.4	12	1.7
	3	958	1.3	19	1.0	212	1.8	21	2.0	9	1.2
	4	920	1.2	26	1.4	207	1.7	22	2.1	16	2.2
1943	1	1173	1.6	35	1.8	259	2.0	33	3.1	17	2.4
	2	1258	1.7	38	2.0	250	2.1	15	1.4	13	1.8
	3	811	1.2	22	1.2	207	1.7	20	1.9	14	2.0
	4	868	1.2	30	1.6	187	1.5	15	1.4	93	1.3

These figures do not reveal any material change over the period covered and do not call for comment other than that expressed in the last two reports. The annual deathrates for the whole country and for the four county boroughs for the corresponding period are shewn in the next table.

Table 31.—Tuberculosis (all forms). Comparative Statement of annual death rates.

Year	Éire	Cork	Dublin	Limerick	Waterford
1936	1.17	1.29	1.59	1.40	1.57
1937	1.23	1.48	1.59	1.49	1.57
1938	1.09	1.38	1.47	1.10	1.32
1939	1.13	1.23	1.48	1.27	1.25
1940	1.25	1.54	1.63	2.05	1.43
1941	1.24	1.38	1.56	1.58	1.40
1942	1.47	1.57	1.90	2.12	1.65
1943	1.40	1.69	1.81	1.90	1.86

A careful statistical analysis of the death rates from tuberculosis in Ireland has been made by Dr. J. E. Counihan and Prof. T. W. T. Dillon the findings of which were read before the Statistical and Social Enquiry Society of Ireland on 29th October, 1943 and have since been published. The next table has (by kind permission) been taken from this paper. The favourable position occupied by Cork City in relation to the other county boroughs will be noted not only in regard to the actual rates of mortality but also as regards percentage decline during the years concerned. It will be noted that the first two columns afford a comparison between the standardised and the crude rates. This is necessary if a true picture is to be obtained of the conditions prevailing in different places. It has been stressed above, for instance, that the heaviest mortality falls upon the 15/45 group and if there is a relatively large number of persons of these ages in a given locality the rate will tend to be higher than it would otherwise have been

TABLE 32—Annual Mortality Rates per 100,000 Population from Tuberculosis in the Years 1935-37 at All Ages.

County	Tuberculosis, all forms			Pulmonary		Non-pulmonary		Rural	Urban
	Standard-ised	Crude	Per cent. decline in crude rate since 1923-28	Male	Female	Male	Female		
Carlow	117	117	22	80	110	29	30	106	170
Dublin ...	145	137	2	117	100	30	28	157	100
Dublin Co. Borough	151	162	26	145	114	30	33	—	162
Kildare ...	113	118	22	75	118	27	17	113	149
Kilkenny ...	104	105	29	74	99	12	29	95	156
Laoighis ...	117	117	23	80	92	31	33	117	—
Longford ...	92	90	10	66	76	22	17	87	113
Louth ...	130	133	22	101	103	34	27	137	129
Meath ...	122	121	18	96	86	30	30	120	131
Offaly ...	123	122	20	88	86	39	31	109	185
Westmeath ...	123	123	23	71	130	17	33	122	138
Wexford ...	149	150	18	108	120	35	37	138	188
Wicklow ...	118	119	21	93	100	29	16	114	130
Clare ...	111	110	16	85	101	19	17	106	143
Cork ...	109	112	20	92	90	22	20	105	154
Cork Co. Borough	143	152	31	141	102	35	27	—	152
Kerry ...	120	121	10	95	97	30	19	112	179
Limerick ...	101	101	20	74	82	23	24	101	—
Limerick Co. Borough	148	155	10	125	115	35	31	—	155
Tipperary ...	120	121	12	87	99	31	25	108	160
Waterford...	121	121	18	80	99	36	29	108	223
Waterford Co. Borough	150	151	23	150	102	33	21	—	151
Galway ...	115	114	12	90	88	27	22	109	142
Leitrim ...	98	96	16	77	78	18	20	96	—
Mayo ...	101	98	19	82	70	22	21	91	163
Roscommon ...	84	82	12	67	73	16	7	82	—
Sligo ...	123	124	+4*	93	92	32	32	110	184
Cavan ...	79	78	22	59	73	10	18	76	100
Donegal ...	100	99	30	68	81	24	24	98	111
Monaghan...	102	101	12	70	73	31	28	95	129
EIRE ...	122	122	18	96	96	28	25	107	155
County and Co. Borough } Mean	118	118	18	91	95	24	25	104	150

*Increase.

(Table vii. in original paper)

The effect of standardisation is particularly seen in the county boroughs of Dublin, Cork and Limerick and in the counties of Dublin and Kildare. In both the crude and standardised rates the figure for Cork is lower than any of the other County Boroughs. The per cent decline in the crude rate since the period 1923-28 has, according to this table, been greater in this area than in any other. Commenting on the figures the authors write :

"The highest standardized rates occur in Dublin Co. Borough, Waterford Co. Borough and Wexford. There has been a substantial decrease in all counties except Sligo, which alone shows an increase of 4 per cent. in the period under review. The distribution of rates is much more even than in 1923-8, which is explained by the fact that the percentage decline has been highest in the counties with the highest rates, which are for the most part the more urbanized regions. Thus the average urban per cent. decrease during the period is 20 per cent., while the rural average amounts to 18 per cent., and only 9 counties out of 22 show a higher rural than urban per cent. decrease. Donegal, with a decrease of 30 per cent., has answered Dr. Geary's appeal for a special effort, and is second only to Cork County Borough in per cent. decrease of *standardized** rates. Donegal rural, with 30 per cent. decrease, is almost as successful as Donegal Urban with 31 per cent. decrease. Dublin County, excluding Dublin County Borough, with 41 per cent. urban decrease, heads the list of urban district decreases, while Waterford County (excluding the Borough) alone shows an urban increase of 8 per cent. For the rural districts Kilkenny heads the list with 31 per cent. decrease, while Dublin County, with 4 per cent. decrease, is at the bottom. The same general picture emerges from Table IX. Cavan, Roscommon and Leitrim show the lowest standardized rates; and Roscommon has the lowest female T. D. R. (standardized) in Eire."

The causes of the increased deaths noted in last year's returns were closely examined in the light of modern information and little can be added to the remarks made in the report for that year so far as an examination of the figures for 1943 is concerned. We note that the brunt of mortality falls upon the same age-groups; that is those comprised of the ages between 15 and 45 years. This tendency has been very marked for many years as will be noted by reference to table 27. The actual figures for the last seven years were as follows :

	15/25	25/35	35/45	45/55	55/65
1937	19	19	23	17	13
1938	16	27	23	24	6
1939	21	10	19	22	10
1940	24	22	24	13	10
1941	13	21	26	18	10
1942	26	22	19	21	9
1943	19	25	22	17	15

There is however this difference that the main increase now occurs in the 55/65 group and that it is quite marked. One has to go back to 1924 for analogous figures (14 deaths occurred in this group during that year.) In 1937 also the figure was a large one. With the exception of the 15/25 group male deaths are in excess of females in all groups. In this particular group, however, there is a very marked preponderance of female deaths—

* Italics not in original paper.

a feature which also characterised the figures for 1942 and which occurred several times in previous years as will be seen by examining table 27. The actual figures for the past few years are shewn in the next table.

Year	15/25		25/35		35/45		45/55		55/65	
	M	F	M	F	M	F	M	F	M	F
1937	9	10	10	9	13	10	13	4	8	5
1938	12	4	12	5	13	10	17	7	4	2
1939	10	11	6	4	13	6	16	6	6	4
1940	12	12	9	13	10	14	9	4	8	2
1941	8	5	11	10	12	14	9	9	6	4
1942	9	17	13	9	12	7	15	6	5	4
1943	4	15	15	10	14	8	14	3	9	6

In comparison with last years figures there has been an appreciable reduction in 15/25 group mainly as the result of reduced *male* deaths. The number of *female* deaths in this group is only two less than in 1942. If the two groups comprising the ages from 15 to 45 years are combined (as was done in last year's report for comparative purposes) it is seen that there has been little or no alteration in the total number of deaths :

Year	15/45
1937	61
1938	66
1939	50
1940	70
1941	60
1942	65
1943	66

The real significance of these figures becomes apparent when we realise first that well over half the total deaths from tuberculosis occur in males during the most productive industrial years and in females during the child-bearing period. Although it is true that some of the deaths at these ages are the result of infection contracted earlier—possibly in childhood—nevertheless it is true that active tuberculosis most often occurs at the ages when people are most actively engaged in profitable occupations. It is especially important to bear in mind that even though tuberculosis is no longer the principal cause of death at all ages, it is undoubtedly the chief destroyer of life between the age of early adolescence and that of 35 to 40 years of age. The proportion of deaths from tuberculosis to deaths from all causes in the different age-groups which occurred in this City during 1943 are shewn in the next table.

Table 33.—Proportion of Deaths from Tuberculosis to Deaths from all causes in 1943.

Age Group	Number of Deaths	Deaths from Tuberculosis	Proportion
0/1	197	3	1.5 per cent.
1/5	47	10	21.3 " "
5/15	28	5	17.8 " "
15/25	42	24	57.1 " "
25/35	46	26	56.5 " "
35/45	75	23	32.0 " "
45/55	99	17	17.2 " "
55/65	213	15	7.0 " "
65 and over	496	7	1.5 " "
Totals ...	1243	130	10.4 per cent.

In this instance it is seen that of all deaths at ages from 15 to 45 practically 45 per cent. are due to tuberculosis. In the next table the mortality rates for the sexes in the different age-groups have been worked out and are compared with the rates for the population in each of these groups.

Table 34.—Deaths from Tuberculosis (pulmonary and non-pulmonary combined) divided into age and sex groups with the rates per 1,000 in each group, for the year 1943.

Age Group	MALES			FEMALES			PERSONS		
	Num-ber in Group	Deaths	Rate per 1000	Num-ber in Group	Deaths	Rate per 1000	Num-ber in Group	Deaths	Rate per 1000
0/1	757	3	3.90	778	—	—	1535	3	1.92
1/5	3047	5	1.31	2925	5	1.70	5972	10	1.67
5/15	7104	1	0.14	7115	4	0.56	14219	5	0.35
15/25	6151	8	1.30	7469	16	2.14	13620	24	1.76
25/35	4776	16	3.35	6723	10	1.48	11499	26	2.26
35/45	4111	14	3.40	5399	9	1.06	9510	23	2.42
45/55	3391	14	4.12	4204	3	0.73	7595	17	2.23
55/65	2967	9	3.03	3643	6	1.64	6610	15	2.26
65 and over	2621	4	1.52	3653	3	0.82	6774	7	1.1

A striking feature in this table is the high rate for males in the 45/55 group and again we see the preponderance of casualties in ages 15/45. In the 15/25 group the rate is higher for females than for males but thereafter there is a very sharp divergence in the figures, the rates among males being much greater than among females. Obviously the 15/25 period is one of great danger for females and many causes have been assigned for this. Obviously the strain imposed by the onset of puberty suggests itself ; but this is not the only reason for the increased mortality among this group. In this connection reference was made in last year's report to the investigations of Laidlaw and McFarlane in Glasgow and to the commentary thereon by Picken in which it was concluded that the wrong use of leisure was a potent factor in inducing increased mortality among the group. It is very difficult, on any other grounds, to explain away the fact that the increased mortality was almost entirely confined to this particular group. Any marked lowering of the general economic or nutritional status of the population as a whole would almost certainly have been reflected in a more evenly distributed increase in the different age-groups. Whatever the cause one thing is certain ; that, so far as we are concerned, there is an urgent need for an active campaign for the prevention of this disease, and, accordingly, one welcomes the efforts now being made in this direction though the rate of progress so far achieved has been somewhat disappointing. Admittedly the extension of existing institutions and the erection of preventoria are matters which take time but there seems to be no reason against embarking at once on an educational programme pointing out how the disease is spread and how it may be prevented. Taking all the relevant facts into consideration there still remains the one fundamental point that the disease is transmitted from the sick to the healthy by the habit of indiscriminate coughing and spitting. This is a practice that will have to be abolished if we are to make any headway against the disease and the sooner the public is made aware of this simple fact the better for all concerned. When one takes into consideration that a great many diseases other than tuberculosis are spread in exactly the same way the urgency of this question becomes even more evident. The fact that there is ample experimental evidence that the very simple action of covering the mouth with a handkerchief during coughing or sneezing will eliminate 95 per cent. of infection from this source makes it difficult to understand the slowness in bringing this knowledge before the public. Spitting is, of course, inexcusable. There is no need here to go into the mechanics of the spread of infection from this source. It should be sufficient to point out that it is in fact a revolting and disgusting habit and that the only means of abolishing it is by creating so strong a public feeling against that it will eventually cease. This can only be done by education. There are many other aspects to a campaign against tuberculosis which it is impossible to deal with here, but allusion to one or two may not be out of place. Next to the mechanical dissemination above referred to may be considered fatigue and nutrition. Here again there is great scope for propaganda in regard to the right use of leisure and the use of the right kinds of food. In the latter connection one of the most urgent needs of the times is that steps should be taken to bring the price of milk within the purchasing power of the poor.

ADMINISTRATION.

The routine administrative work of the Tuberculosis Dispensary is summarised in the following paragraphs.

The number of new patients examined at the Tuberculosis Dispensary during the year amounted to 284, of whom 163 were adults and 121 children. 86 of the adults and 29 of the children were found to be suffering from tuberculosis in one form or another and appropriate treatment was afforded.

As in former years the new cases dealt with at the Tuberculosis Dispensary who presented signs of advanced disease was disproportionately high. 47 per cent. of such were found to be in Stage III. and 44 per cent. in Stage II. ; in other words, no less than 91 per cent. of the new cases were suffering from definitely established disease recognisable by ordinary clinical methods. These figures are similar to those of former years and must be regarded with considerable dissatisfaction, as little or nothing can be done in regard to the treatment of such advanced cases apart from palliative methods. The main factor in the production of this state of affairs appears to be the failure of patients to seek treatment sufficiently early.

Table 35.—Showing the proportion of early, moderately advanced and advanced cases attending the Tuberculosis Clinic for the first time (1930 to 1943).

TYPE	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
Stage I. (Early)	15%	8%	9%	6%	14%	13%	6%	9%	5%	8%	6%	3%	4%	9%
Stage II. (Moderately Advanced)	36%	50%	38%	39%	28%	30%	43%	38%	33%	32%	44%	46%	34%	44%
Stage III. (Advanced)	49%	42%	53%	55%	58%	57%	51%	53%	62%	60%	50%	51%	62%	47%

The number of cases admitted to sanatorium during the year was as follows :—

	Males	Females	Total
Insured ...	12	10	22
Uninsured	4	6	10
Children...	—	—	—
Total	16	16	32

The number of patients discharged from sanatorium during the year was as follows :

	Males	Females	Total
Insured ...	13	13	26
Uninsured	1	7	8
Children ...	—	—	—
Total	14	20	34

Advanced cases who are not likely to derive benefit from sanatorium treatment who cannot receive adequate treatment in their own homes are admitted to St. Patrick's Hospital. The following cases were admitted during the year :—

		Males	Females	Total
Insured ...	...	18	6	24
Uninsured	...	6	21	27
Total	...	24	27	51

The following cases died or were discharged from the Institution :

		Males	Females	Total
Insured ...	...	20	3	23
Uninsured	...	3	23	26
Total	...	23	26	49

SPUTUM EXAMINATIONS.

Examinations of specimens of sputum is carried out in the laboratory attached to the Tuberculosis Clinic. 277 such specimens were examined during the past year, of which 61 were found to contain tubercle bacilli while 216 were negative. Of the 277 specimens examined 49 were submitted by medical practitioners. The following table shows the number of specimens examined, and the results obtained during the past nine years.

Year	Total	Positive	Negative
1931	375	90	285
1932	440	94	346
1933	502	118	384
1934	519	121	398
1935	512	94	418
1936	467	93	374
1937	511	73	438
1938	336	49	287
1939	228	51	177
1940	336	88	248
1941	276	68	208
1942	295	81	214
1943	277	61	216
Totals ...	5074	1081	3993

In all cases attending the clinic, sputum examination is a routine procedure, and pocket flasks are issued to all those who are found to be positive. A register is kept of such cases and attention in regard to prevention is concentrated on them. Thirty-five flasks were issued during the year.

The number of notifications received during the year was 173. Prior to 1930 such notifications were for the period from the 1st April to 31st March following. Notifications for previous years were as follows—

1925-26	...	...	110	1934	...	...	112
1926-27	...	...	108	1935	...	...	154
1927-28	...	...	73	1936	...	...	154
1928-29	...	...	116	1937	...	...	166
1929-30	...	...	179	1938	...	...	147
1930 (April-Dec.)	...	...	133	1939	...	...	128
1931	...	...	196	1940	...	...	114
1932	...	...	136	1941	...	...	173
1933	...	...	164	1942	...	...	159
				1943	...	...	173

In the following table notifications, from the year 1930, have been analysed as to age and sex distribution.

Table 36.—Notifications of Tuberculosis distributed according to Sex and Age.

Year	Total	Sex	All Ages	Under 5 yrs	5-15	15-45	45-60	60 and up
1930	133	M	77	4	11	50	11	1
		F	56	5	11	37	2	1
1931	196	M	114	9	24	64	15	2
		F	82	7	19	53	3	—
1932	136	M	71	5	11	42	11	2
		F	65	1	6	48	7	3
1933	159	M	89	5	10	59	14	1
		F	70	5	8	48	8	1
1934	112	M	43	1	6	26	9	1
		F	69	4	10	41	9	5
1935	154	M	83	7	14	43	14	5
		F	71	5	15	40	7	4
1936	154	M	76	9	10	33	16	8
		F	78	3	12	55	6	2
1937	166	M	91	5	10	47	25	4
		F	75	2	10	52	5	6
1938	147	M	78	4	6	52	15	1
		F	69	4	10	49	5	1
1939	128	M	60	5	9	33	10	3
		F	68	3	3	54	6	2
1940	114	M	56	1	6	35	14	—
		F	58	5	4	41	6	2
1941	173	M	90	8	13	48	19	2
		F	83	8	14	51	7	3
1942	159	M	80	8	13	43	16	—
		F	79	3	18	48	6	4
1943	173	M	83	1	14	45	14	9
		F	90	1	10	66	10	3

The number of home visits made by the Tuberculosis Nurse was 569.

X-RAY EXAMINATION.

88 X-Ray examinations were carried out during the year. This form of examination is utilised for the most part in connection with cases presenting doubtful diagnostic features. All cases of bone and joint disease are subjected to X-Ray examination as routine. The method is also availed of very largely in connection with artificial pneumothorax treatment not only for the purpose of estimating, in the first instance, whether cases are suitable or not but, at a later stage to judge the progress which they are making.

ARTIFICIAL PNEUMOTHORAX.

Ten new cases received artificial pneumothorax treatment during the year. These cases had their induction carried out at Heatherside Sanatorium by the R.M.S. Six cases are having refills and management at the Tuberculosis Clinic. Routine X-Ray examinations are made at the North Infirmary by arrangement with Dr. J. Fielding, Radiologist. The number of cases treated during the year was fourteen. 195 refills were given and 38 X-Ray examinations were made in connection with the treatment.

INSTITUTIONAL TREATMENT.

In the tables which follow statistical details are given of the various institutions which have been utilised for the treatment of our cases during the past year. Early and moderately early cases of pulmonary disease have, almost all, been referred to the Cork Sanatorium at Heather-side.

Table 37.—Particulars of patients who received sanatorium treatment during the year.

	Under treatment on 1st. Jan. 1943	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec. 1943	No. of Cases treated during the year
Insured Males ...	8	12	13	7	20
„ Females ...	5	10	13	2	15
Uninsured Males ...	—	4	1	3	4
„ Females ...	3	6	7	2	9
Ex-Service men ...	1	2	2	1	3
Male Children ...	—	—	—	—	—
Female Children ...	—	—	—	—	—
Totals ...	17	34	36	15	51

Table 38.—Particulars of cases treated at Cork District Hospital.

	Under treatment on 1st. Jan. 1943	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec., 1943	No. of Cases treated during the year
Male Adults ...	4	24	25	3	28
Female Adults ...	4	17	16	5	21
Male Children ...	3	6	6	3	9
Female Children ...	1	4	3	2	5
Totals ...	12	51	50	13	63

Table 39.—Particulars of patients treated in St. Patrick's Hospital during 1943.

		Under treatment on 1st. Jan. 1943	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec. 1943	No. of Cases treated during the year
Insured Males	...	10	18	20	8	28
„ Females	...	—	6	3	3	6
Uninsured Males	...	1	6	3	4	7
„ Females	...	4	21	23	2	25
Ex-Servicemen	...	1	9	6	4	10
Male Children	...	—	—	—	—	—
Female children	...	—	—	—	—	—
Totals	...	16	60	55	21	76

Table 40.—Particulars of cases treated in the North Infirmary during 1943.

		Under treatment on 1st. Jan., 1943	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st. Dec., 1943	No. of Cases treated during the year
Male children	...	—	1	—	1	1
„ adults	...	—	3	3	—	3
Female children	...	—	—	—	—	—
„ adults	...	—	1	1	—	1
Totals	...	—	5	4	1	5

Table 41.—Particulars of cases treated in the South Infirmary during 1943.

		Under treatment on 1st Jan., 1943	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1943	No. of Cases treated during the year
Male children	...	3	4	7	—	7
„ adults	...	—	2	1	1	2
Female children	...	—	3	3	—	3
„ adults	...	—	3	3	—	3
Totals	...	3	12	14	1	15

Table 42.—Particulars of cases treated in St. Mary's Open-Air Hospital Cappagh, Co. Dublin.

	Under treatment on 1st Jan., 1943	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1943	No. of Cases treated during the year
Female children ...	3	—	3	—	3
Male children ...	—	—	—	—	—
Totals ...	3	—	3	—	3

Table 43.—Particulars of cases treated at St. Joseph's Hospital, Mount Desert, during 1942.

	Under treatment on 1st Jan., 1943	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1943	No. of Cases treated during the year
Insured Males ...	8	22	26	4	30
„ Females ...	6	11	11	6	17
Uninsured Males ...	—	5	2	3	5
„ Females ...	4	12	12	4	16
Male children ...	1	—	1	—	1
Female children ...	—	—	—	—	—
Totals ...	19	50	52	17	69

Table 44.—Particulars of cases treated at Coole Open-Air Hospital, Co. Westmeath.

	Under treatment on 1st Jan., 1943	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1943	No. of Cases treated during the year
Male children ...	3	2	1	4	5
Total ...	3	2	1	4	5

Table 45.—Particulars of cases treated at Mercy Hospital.

	Under treatment on 1st Jan., 1943	New cases admitted during the year	Cases discharged during the year	Under treatment on 31st Dec., 1943	No. of Cases treated during the year
Male Adults ...	—	3	3	—	3
„ Children ...	—	4	4	—	4
Female Adults ...	—	1	1	—	1
„ Children ...	—	5	5	—	5
Totals ...	—	13	13	—	13

During the year an X-Ray Screen was added to the equipment of the clinic. This apparatus, which enables the Tuberculosis Officer to visualise the lung fields has been a very great help.

Screen examinations of the lungs are made :—

- (1) To define the extent of lung involvement by disease.
- (2) To observe the progress of cases undergoing artificial pneumothorax treatment.
- (3) To help in the examination of those who have been in contact with tuberculous patients.

It is scarcely necessary to add that the approach to diseases of the chest cannot be regarded as competent unless an X-Ray examination is made. The methods of examination of the lungs at our disposal other than X-Rays are not sufficiently sensitive to define the extent of the tuberculous disease. In many cases they are not sufficient to detect the disease at all.

The number of screen examinations made during the year was 253.

Table 46.—Return of number of patients treated under the Tuberculosis Scheme, during the year ended 31st December, 1943.

	Pulmonary Tuberculosis			Non-Pulmonary Tuberculosis			Total
	Children under 15 years	Other Persons		Children under 15 years	Other Persons		
		Males	Females		Males	Females	
1.— <i>Insured Patients :</i>							
(i) No. remaining under treatment							
(a) On 1st Jan., 1943 ...	—	72	40	—	2	2	116
(b) On 31 Dec., 1943 ...	—	69	37	—	1	2	109
(ii) No. of new patients treated during year ...	—	43	14	—	—	—	57
(iii) No. of cases under observation at close of year 1943 ...	—	2	1	—	—	—	3
2.— <i>Other Patients :</i>							
(i) No remaining under treatment							
(a) On 1st Jan., 1943 ...	4	26	43	49	3	9	134
(b) on 31st Dec., 1943 ...	2	40	58	59	6	13	178
(ii) No. of new patients treated during year ...	2	20	40	33	4	8	107
(iii) No of cases under observation at close of year 1943 ...	1	3	2	4	—	—	10

During the past few years research workers in Tuberculosis have been much concerned with the form of this disease which is most prevalent in childhood.

It is now clear from a considerable volume of work, which has been carried out in this country by Dr. Dorothy Price, and other countries, that the great majority of children become infected with tuberculosis and that the disease thus produced does not give rise to serious ill health. This happy termination of tuberculosis in children is not, however, without exception. Under one year of age infection tends to become rapidly generalised in the body and death from tuberculous meningitis takes place.

From this period to puberty infection as a whole escapes unnoticed. The symptoms are not sufficiently grave to merit the serious concern of the parents and the child recovers to be left with a protection for after life. In some cases, however, the symptoms are severe enough to merit medical attention and investigation and in these cases it is often found that this childhood type of infection is not taking its normal course to resolution. There is apparently a delay in the development of the immunity which is the normal accompaniment of this phase of tuberculous infection. During this time, while immunity is becoming established there is danger that the disease may spread sometimes with fatal results. Such spreads have been observed in contiguous portions of the lungs and via the blood stream to bones and to the brain and its covering membranes. The eyes also may suffer during this period.

This conception of childhood tuberculosis has been agitating the minds of those whose work is concerned with these problems and it has become apparent that measures must be taken to discover such cases and afford necessary treatment. The peculiar state of the body defences at this stage of the disease renders the patient unsuitable to be dealt with in tuberculosis institutions. It is in fact highly undesirable that they should come into contact at all with patients who suffer from tuberculosis and are excreting the germs in the cough and sputum.

The basis of management of these primary cases is rest and suitable nourishment in good hygienic conditions. Complete recovery without complications is the rule under such a regime. In other countries special institutional facilities are provided where these primary cases may have specialised management and where the progress of the condition may be studied. In Dublin such facilities are now available in one institution. The need exists in Cork for arrangements of a like nature and the whole question is having our consideration.

Section IV.

Maternity and Child Welfare.

(A) INFANT MORTALITY.

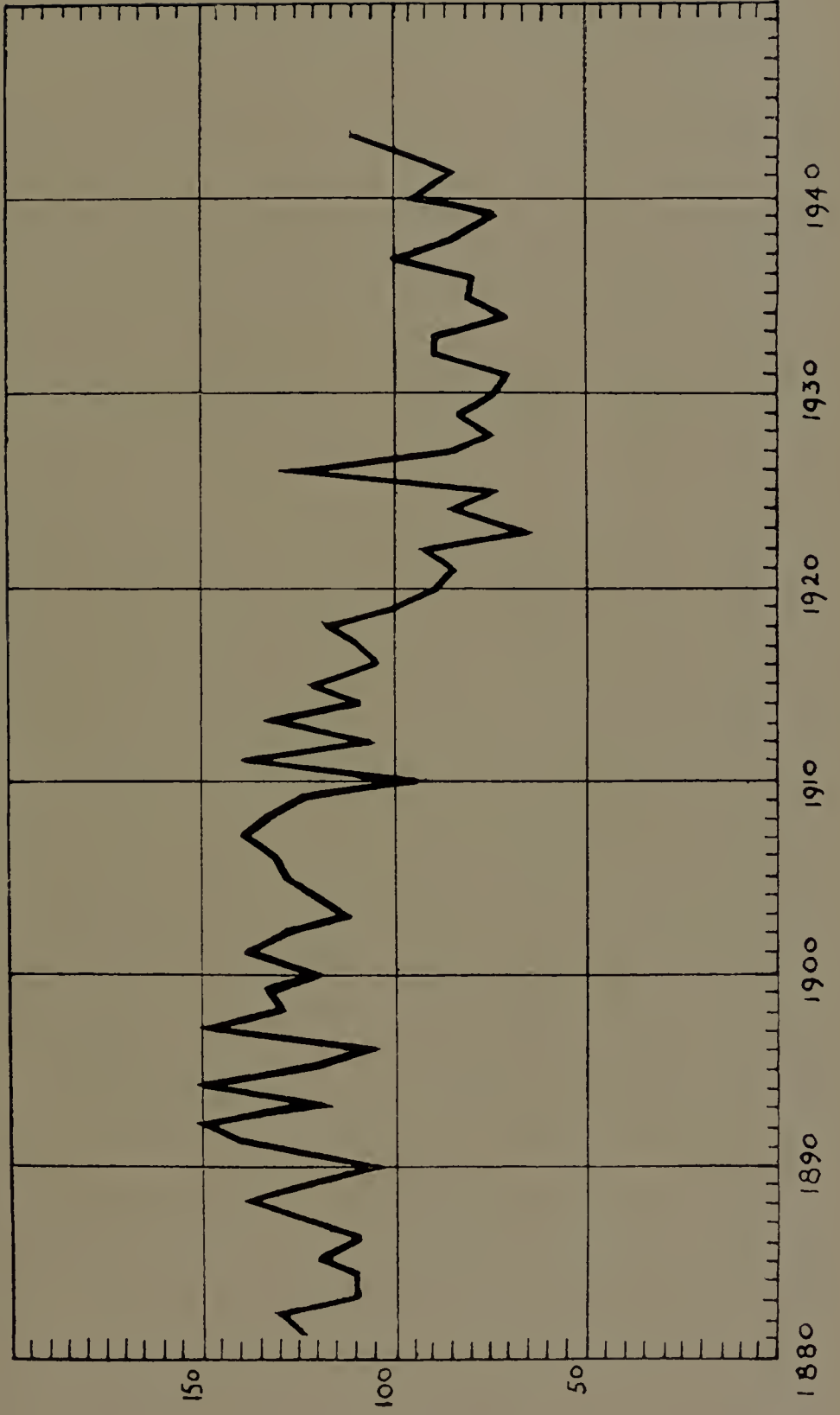
The number of deaths of infants under one year of age amounted to 196, which is equivalent to an infant mortality rate of 113 per 1,000 live births. The corresponding figures last year were 171 and 100 per 1,000 respectively. The principal contributory causes were as follows :—

Premature birth and congenital debility	...	69
Diarrhoea and enteritis	... ..	52
Broncho-pneumonia	... ..	25
Marasmus	... ..	12
Convulsions	... ..	8

It will be noted that there is a discrepancy between the figures which appear above and those set out in other parts of this report (especially in Table 7 which is an analysis of the causes of death at various ages which occurred during the year). The latter figures are based on the certified causes of death and often are misleading. All figures in this section have been subjected to a careful analysis based on enquiries made by our nurses into all infant deaths which occur in this area. This enquiry has been maintained for several years and not infrequently we have had to alter the cause of death from one heading to another. This has been especially marked in the case of marasmus. The word *marasmus* of course means only wasting and the majority of death certificates make no attempt to define the cause of the wasting. Our enquiries, on the other hand, often reveal a definite pre-existing cause such as gastro-enteritis in which case the death will be attributed to the latter condition such redistribution has taken place this year and accounts of the discrepancies above referred to.

The figure (113 per 1,000) yielded by this Year's infants' deaths is the highest recorded for many years. An attempt has been made to analyse all the infant deaths in regard to antecedent factors, environment, economic and other circumstances but time has not permitted a full examination of all the relevant details. One thing however was noted, that the proportion of neo-natal deaths (i.e. deaths of infants under one

FIG. II. —INFANT MORTALITY FROM 1880 TO PRESENT.



month) to all infant deaths was considerably higher than it has ever been. In 1943 these deaths constituted 46.4 per cent. of all infant deaths. In 1942 they were 32.9 per cent, and the highest previous proportion 39.8 per cent. in 1939. The relevant figures are set out in the following tables.

Table 47.—Infant Mortality, Cork City, Éire, and England and Wales from 1881.

Year	Cork	Éire	E. & W.	Year	Cork	Éire	E. & W.
1881	124	89.4	139	1912	107	82.1	95
1882	127	94.9		1913	136	93.1	108
1883	109	95.0		1914	119	81.0	105
1884	110	91.9		1915	132	85.2	110
1885	120	91.3	145	1916	105	81.3	91
1886	110	93.9		1917	108	84.0	96
1887	123	93.6		1918	118	80.2	97
1888	139	96.0		1919	100	84.4	89
1889	125	92.0	144	1920	79	77.5	80
1890	106	91.6	151	1921	76	72.6	83
1891	138	91.4	149	1922	93	68.9	77
1892	150	99.9	148	1923	66	66.4	69
1893	132	99.8	159	1924	87	71.6	75
1894	150	97.4	137	1925	74	67.9	75
1895	131	98.0	161	1926	130	74.4	70
1896	106	91.0	148	1927	87	70.8	70
1897	152	104.0	156	1928	76	67.9	65
1898	131	105.2	160	1929	81	70.4	74
1899	133	103.2	163	1930	77	68	60
1900	120	105.3	154	1931	71	69	66
1901	139	95.5	151	1932	89	71	65
1902	127	95.2	133	1933	89	65	64
1903	112	92.2	132	1934	72	63	59
1904	118	95.8	145	1935	84	67	57
1905	131	90.2	128	1936	80	74	59
1906	133	88.0	132	1937	103	73	58
1907	139	88.5	118	1938	75	66	53
1908	134	91.2	120	1939	73	65	50
1909	125	87.3	109	1940	92	66	56
1910	96	89.1	105	1941	85	73	59
1911	139	91.3	130	1942	100	68	49
				1943	113	80	

In Table 48 is set out a comparative statement of infant mortality in Cork, Dublin, Belfast, Limerick and Waterford from 1920 to 1941.

Table 48.—Infant mortality in Cork and other Irish Cities from 1920.

Year	Cork	Dublin*	Belfast†	Limerick*	Waterford*
1920 ...	79	152	132	109	96
1921 ...	76	143	115	113	102
1922 ...	93	120	94	108	94
1923 ...	66	117	101	128	78
1924 ...	87	119	107	90	93
1925 ...	74	117	104	91	106
1926 ...	130	127	112	146	114
1927 ...	87	123	101	102	83
1928 ...	76	102	103	117	105
1929 ...	81	106	112	118	110
1930 ...	77	97	78	114	91
1931 ...	71	94	90	120	92
1932 ...	89	100	111	91	132
1933 ...	89	83	102	126	103
1934 ...	72	80	80	76	92
1935 ...	84	94	112	106	126
1936 ...	80	114	102	95	90
1937 ...	102	102	94	68	97
1938 ...	75	96	96	70	99
1939 ...	73	90	86	59	73
1940 ...	95	91	122	70	111
1941 ...	85	118	91	95	88
1942 ...	100	98	90	77	91
1943 ...	113	128	111	77	92

* Figures for current year obtained from Annual Summary of Registrar-General. Those for previous years have been corrected from figures in the Annual Reports of the Registrar-General for the appropriate years. (Table 10).

† Figures obtained from Superintendent Medical Officer of Health.

Neo-natal Mortality. The role of neo-natal mortality (i.e., deaths of infants under one month old) in the production of infant mortality is shewn in the following table.

Table 49.—Deaths of infants *under one month* in Cork City and the ratio of same to the total number of infant deaths (i.e., under one year), together with the comparative figures for the whole country.

Year	CORK CITY		ÉIRE. Relation of deaths under one month to all infant deaths
	Deaths under one month	Proportion to all infant deaths	
1931	41	30.1 per cent	38.4 per cent.
1932	47	29.6	35.9
1933	56	33.3	39.7
1934	43	29.9	38.7
1935	39	26.2	39.9
1936	56	36.8	40.5
1937	58	31.4	41.7
1938	34	27.2	42.4
1939	47	39.8	44.1
1940	45	29.4	42.0
1941	52	30.9	41.2
1942	52	32.9	39.5
1943	91	46.4	—

In the next table infant deaths have been subdivided into those which occurred under one month of age and those between this age and 12 months

Table 50.—Deaths of infants under 1 year, shewn as neo-natal and other deaths.

Cause of Death	Neo-Natal	Others	Total
Prematurity ...	40	6	46
Congenital Debility ...	12	—	12
Congenital Malformations	4	7	11
Diarrhoea and Enteritis	9	43	52
Pneumonia ...	5	20	25
Marasmus ...	2	10	12
Convulsions ...	6	2	8
Icterus ...	5	—	5
Septic Infections ...	1	3	4
Cerebral Haemorrhage ...	2	2	4
Asphyxia ...	3	—	3
Infectious Diseases	—	6	6
Miscellaneous ...	2	6	8
Totals ...	91	105	196

In dealing with the question of infant mortality we have to consider the problem under two heads, the deaths which take place during the first month of extra-uterine life (the so-called neo-natal period) and those which take place during the remaining eleven months. The first month of life is the most dangerous for the infant and of this period the first week is the most precarious (in actual fact the majority of neo-natal deaths occur in the first week). The chances of survival are greatly increased if the child can tide over this period successfully and, consequently, it is a matter of much importance to examine the factors which react so prejudicially to it during this period. Having done so we can take up the question of infant mortality generally.

Much thought has been given to this matter in recent years, especially in countries which have succeeded in reducing their infant mortality rates to much lower levels than those prevailing here. It has been said that it is much easier to reduce an infant mortality rate of 100 to one of 50 than it is to reduce it from 50 to 40. The implication is that by improving environment, encouraging the breast feeding of infants, improving the nutrition of the mother and inculcating the principles of hygiene among the community we can overcome the more obvious factors predisposing to the deaths of infants, but that we are left with a residue of causes by no means so amenable to administrative action. These causes may be said to comprise the triad referred to as prematurity, congenital debility and congenital malformations commonly grouped together for statistical purposes and usually the principal contributory factor to infant mortality. Of the 92 neo-deaths recorded during the year no less than 72 may be said to come under this head. (Icterus, cerebral haemorrhage and asphyxia have been included in this total as they are all, more or less, conditions pre-natal in origin). In the present state of our knowledge we have no definitely effective measures to combat these causes of infant

Table 51.—Cork City—Deaths of Infants under one year from conditions which constitute the principal causes of Infant Mortality.

Year	Number of Births Registered	DEATHS OF INFANTS UNDER ONE YEAR FROM																Rate per 1000 Births	Whooping Cough	Rate per 1000 Births
		Congenital Debility	Rate per 1000 Births	Prematurity	Rate per 1000 Births	Congenital Malformations	Rate per 1000 Births	Diarrhoea and Enteritis	Rate per 1000 Births	Pneumonia	Rate per 1000 Births	Convulsions	Rate per 1000 Births	Bronchitis	Rate per 1000 Births					
1931	1,963	18	9.17	20	10.19	9	4.58	28	14.26	8	4.08	16	8.15	5	2.55	3	1.53			
1932	1,820	28	15.38	13	7.14	6	3.30	39	21.43	13	7.14	19	10.44	8	4.40	8	4.40			
1933	1,884	19	10.08	27	14.33	7	3.72	38	20.17	17	9.02	13	6.90	13	6.90	2	1.06			
1934	1,846	17	9.21	24	13.00	6	3.25	32	17.33	12	6.50	9	4.88	8	4.33	8	4.33			
1935	1,915	18	9.40	19	9.92	5	2.61	50	26.11	23	12.01	6	3.13	5	2.61	—	—			
1936	1,913	12	6.27	28	14.64	5	2.61	36	18.82	27	14.11	10	5.23	6	3.14	—	—			
1937	1,799	18	10.01	13	16.68	7	3.89	45	25.01	27	15.01	18	10.01	4	2.22	5	2.78			
1938	1,761	13	7.38	19	10.79	7	3.98	31	17.60	21	11.93	9	5.11	3	1.70	3	1.70			
1939	1,632	24	14.17	16	9.80	8	4.90	34	20.83	9	5.51	10	6.13	3	1.84	2	1.23			
1940	1,670	17	10.18	25	14.97	4	2.40	45	26.95	15	8.98	8	4.79	5	2.99	—	—			
1941	1,080	15	8.93	25	14.88	10	5.95	33	19.65	16	9.52	11	6.55	6	3.57	1	0.59			
1942	1,842	14	7.60	18	9.77	17	9.23	49	26.60	16	8.69	10	5.43	5	3.26	1	0.54			
1943	1,781	12	6.23	46	25.82	11	6.17	52	29.19	25	14.03	8	4.49	4	2.23	2	1.12			

deaths although there is a steadily increasing accumulation of knowledge which, it is hoped, will eventually point the way. Of the causes of neo-natal death prematurity, with a total of 40 out of 91, was outstanding. Reference to table 51 also shews that this figure was greatly in excess of that of any other year, the previous highest was 27 in 1933. (It should be noted that the figures in this table refer to all infant deaths under one year, and not to those under one month, but the great bulk of such deaths occur in the neo-natal period). According to Parsons* the great predisposing cause of prematurity is the health of the mother and in particular, the occurrence of toxæmia of pregnancy; its prevention, like that of birth injury is therefore largely an obstetric problem. Other factors, he proceeds, such as the relative numbers of primipara and multipara and the domestic assistance available in each class, should of course be considered, but Baird's deduction that the diet of the mother is the probable cause of these differences seems incontrovertible. There is not, as he points out, a great deal of direct evidence of the effect of malnutrition on the human offspring although there is a considerable amount of evidence in experimental animals.

In connection with the deaths which occurred in this area during the year an enquiry was made into the circumstances connected with them. This was part of a similar investigation which has been going on for some years past the findings of which have not yet been fully examined. It is not claimed that this has been by any means a complete and full examination of all the relevant facts (the time at one's disposal, unfortunately does not permit that) but in view of the increased infant mortality during the past year and particularly because of the increase in neo-natal deaths it was decided to examine the records of the enquiry for that period to see if they would throw any light on this increased mortality. so far as *neo-natal* deaths are concerned the findings are tabulated in table. 52

Table 52.—Neo-natal deaths. Analysis of factors concerned.

Cause of Death	Number of Deaths	Efficiency of Mother			Previous Health of Mother		Economic Circumstances			Pre-natal Supervision	
		Good	Avg.	Bad	Good	Poor	Good	Avg.	Bad	+	—
Prematurity ...	40	11	24	5	18	22	12	16	12	25	15
Congenital Debility	12	5	5	2	6	6	4	3	5	8	4
Congenital Malformations ...	4	1	3	—	2	1	1	3	—	2	2
Gastro-enteritis ...	9	2	6	1	6	3	1	7	1	5	4
Convulsions ...	6	3	2	1	6	—	4	1	1	4	2
Broncho-pneumonia	5	4	1	—	5	—	—	4	1	3	2
Icterus ...	5	2	3	—	3	2	1	4	—	4	1
Miscellaneous ...	10	5	4	1	5	5	3	2	5	6	4
Total ...	91	33	48	10	51	40	26	40	25	57	34

* The Lancet, 26th Feb., 1944.

Enquiries under other headings were also made such as method of feeding (which was found to be of no significance except in gastro-enteritis and marasmus), need for the mother to work during or after pregnancy, legitimacy, etc. The latter two factors were not found to be concerned. Of the 91 deaths, 5 were of illegitimate infants and in only 2 instances had the mothers to work and then only for short periods. The status of the father in regard to unemployment was taken into consideration in estimating the economic circumstances and all cases in which he was unemployed are included under the column "bad" in this portion of the table and it will be noted that roughly 25 per cent. of the deaths come under this heading. In estimating the question of indigency the general environmental circumstances have been brought under review as it has been found that statements as to earnings cannot always be relied on. The question of indigency is intimately bound up with that of the efficiency of the mother and any enquiry which neglects the latter factor is almost bound to lead to fallacious conclusions. It is of course, very difficult to assess efficiency in the matter of housekeeping and the rearing of children but a good rough idea of it can be formed from experience such as that acquired by health visitors in the homes of the people. In something over 10 per cent. it was definitely bad while in 33 of the cases investigated it was well above the average. One knows from practical experience that often a very high degree of efficiency may be associated with environmental circumstances of a most discouraging character—isolated rooms in tenements, small cottage homes which it is a pleasure to visit. These are cases in which we are brought into contact with the personal factor in which the mother of the family refuses to lower her standards to the environmental forces pressing on her. In such cases standards attained are much higher than those found in the great majority of households where the question of economic stringency does not arise at all. They are however, exceptional cases and it is clear that taking the population by and large the primary stimulus to a decent level of household management is a self-contained house for each family. The conclusions to be drawn from this enquiry are limited by the smallness of the figures, the shortness of the period reviewed and the lack of a comparison with other relevant groups of the population at risk.

A similar procedure has been followed in connection with the deaths which occurred between the ages of one and twelve months. The main findings are summarised in the following table.

Table 53.—Main factors concerned in deaths between 1 and 12 months

Cause of Death	No. of Deaths	Feeding		Efficiency of Mother			Economic Circum- stances			Legitimacy	
		Breast	Artfl.	Good	Avg.	Bad	Good	Avg.	Bad	Legit.	Illegit.
Gastro-enteritis* ...	43	0	43	6	13	24	2	16	25	36	7
Broncho-pneumonia	20	2	18	4	10	6	—	9	11	19	1
Marasmus ...	10	1	9	—	3	7	—	4	6	8	2
Prematurity Congen- Malform'ns., etc.	13	1	12	2	7	4	—	8	5	10	3
Meningitis ...	3	1	2	—	2	1	—	1	2	3	—
Whooping Cough	2	—	2	—	2	—	—	2	—	2	—
Influenza ...	1	—	1	1	—	—	1	—	—	1	—
Convulsions ...	2	—	2	1	—	1	1	—	1	2	—
Septic Infection	3	1	2	—	3*	—	—	2	1	3	—
Cerebral Haemorrh.	2	1	1	—	1	1	—	—	2	2	—
Miscellaneous† ...	6	1	4	1	2	2	—	3	2	5	—
	105	8	96	15	43	46	4	45	55	91	13

*Six of these deaths were certified due to "marasmus," they were transferred to gastro-enteritis after investigation.

†One death under this heading could not be traced. This accounts for the discrepancy between the total (105) in the first column and the figure (104) which occurs in each of the other columns.

The most striking feature of this table is the preponderance of artificially fed infants, a preponderance confined not to the group of deaths caused by gastro-enteritis but common to practically all the deaths investigated. Artificial feeding is especially associated with gastro-enteritis and its influence in this connection has been stressed for many years past in these reports, but it does not seem to be so generally known that it may also exercise a potent influence for evil in the resistance of the infant to other infections. We see from this table, for instance, that 18 of the 20 deaths from broncho-pneumonia occurred in bottle-fed infants while an identical proportion of deaths attributed to marasmus occurred among infants similarly fed. The contrast is too striking indeed to be attributed to chance and we are inevitably led to the conclusion that the institution of artificial feeding introduces a great risk to the health of the child. This matter has been fully dealt with in the Interim Report (Vol. I) of the League of Nations in which the importance of the complete breast feeding of infants is stressed. The conclusions are based on a series of enquiries made in various countries of which the most important was probably that carried out by the Municipal Infant Welfare Department in Chicago. In this investigation over 20,000 infants attending the centres between 1924 and 1929 were closely followed-up for the first nine months of infant life. Of these, 48.5 per cent. were wholly breast fed; 43.0 per cent. partially breast-fed and 8.5 per cent. entirely bottle-fed. Artificial feeding was carried out under a careful plan and all infants (artificially fed or otherwise) were attended by

officials of the centre. The *mortality rates* of these different groups were as follows :—

	Number	Deaths	Proportion of Deaths
Wholly breast-fed	9,749	15	0.15 per cent.
Partially breast-fed	8,605	59	0.70 " "
Artificially fed	1,707	144	8.40 " "

It will be seen that the mortality among the artificially-fed infants is *fifty-six* times greater than amongst the breast-fed. The difference in the death rates between these classes of infants was largely due to deaths following respiratory infections and, to a less degree, gastro-intestinal and other infections. Thus while only 4 out of 9,749 *breast-fed* infants died of respiratory infections, 82 out of 1,707 *artificially-fed* died from this cause. No clearer evidence could be obtained to enforce the advantages of breast feeding as compared with artificial feeding. Similar evidence was afforded by the enquiry of the League into the causes of infant mortality in six European and four South American countries, which demonstrated the part played by bad feeding in the deaths of infants. Where this mortality was low digestive troubles caused by bad feeding were rare : where it was high, digestive troubles were very prevalent (they were the outstanding cause of death), and it is by reducing them that mortality can be reduced. Conversely, where breast-feeding was general the "nutritional peril" was usually small ; where artificial feeding predominated, it was great.*

In his annual report for 1942, Dr. C. J. McSweeney, R.M.O., Cork Street Fever Hospital, Dublin, alluded to the cases of gastro-enteritis admitted to his institution and remarks :—

Because our knowledge of its aetiology is still incomplete preventive measures directed towards its elimination cannot be finally postulated. But we do know enough to reduce the incidence of the disease very materially. *If all infants could be breast-fed for at least the first 3 months of life about 200 infants would be saved in Dublin each year. If the breast-feeding could be continued for 6 months gastro-enteritis as a public health problem would disappear.*† It is idle in this time of economic depression to expect that the poor mothers living in the Dublin slums can devise satisfactory methods for the hygienic storage of even highest grade milk, and because of gas restrictions the sterilisation of bottles and teats for every feed is literally an impossibility at the present time. It may be that the rubber shortage will render it impossible to obtain teats in the not distant future. The need for encouraging breast-feeding was never greater. How can this be done ? The activities of M. and C. W. authorities and the staffs of maternity hospitals in advocating breast-feeding could be supplemented by practitioners in private and dispensary practice and especially by those engaged in large midwifery practices. The lady members of many social agencies who visit the homes of the poor could use their influence in urging on mothers the vital necessity of continuing breast-feeding during the first 6 months of the baby's life. But more than this is needed. The development of this disease in a young baby is, in my experience, very frequently the outcome of economic conditions in the household which have caused malnutrition in the mother with a consequent failure of lactation. Time and again the story is that the baby was thriving on breast-feeding when the husband lost his temporary employment, or returned from remunerative work abroad. The breast milk failed a week or two later and gastro-enteritis develops within a few days. The nutrition of the pregnant and lactating mother should be a first charge on a Christian state.

* Wrench : The Wheel of Health. p. 49

† Italics not in the original.

There is now complete unanimity among the authorities as to the prime factor in the causation of gastro-enteritis. The remarks quoted above endorse these of Prof. Bigger (cited in last year's report) in which he points out that mother's milk is the most suitable and easily digested food for the infant; that it is supplied fresh and free from bacteria requiring the minimum of intelligence, instruction and money. It is possible to rear an infant successfully by artificial feeding, but this requires money to purchase the best and cleanest milk or other food, constant care and intelligence for its preparation and suitable facilities for its protection and storage. In the absence of these, the food will probably be heavily contaminated by bacteria and disease will occur.

The outstanding epidemiological features of infantile diarrhoea and vomiting, which masquerades under many synonyms, are summed up in its preponderance among artificially-fed infants of urban poor-class districts. If progress is to be made in its control the paramount need is for prevention. This would largely be achieved if all mothers could breast-feed their babies for 6-9 months. The fact that only 30-50 per cent. of mothers feed their infants for even 3 months is due to a variety of causes. A longer period of rest after confinement, more home help, proper feeding of the mother, attention to the hygiene of lactation and, in particular, education of both doctors and the lay public about the advantages of breast-feeding, would all help to secure proper lactation and thus save a large proportion of the infants who die every year because they are not breast-fed¹. A report on an outbreak of neo-natal diarrhoea in an institution further emphasises the risk attendant on artificial feeding of young infants. Not one of 12 babies who were wholly breast-fed contracted the infection. Whereas 18 artificially-fed infants became infected and 15 of them died². Findings such as these are part and parcel of the results obtained by other investigators under most diverse circumstances and they are on a par with those which have come to light from investigations made locally (such as they are). In the citation above from Prof. Bigger's book it will have been noted that a certain amount of stress has been placed upon the necessity for intelligence in the use of artificial feeding. There is not doubt whatever that a large part of the trouble is due to lack of this characteristic (or possibly of education) as it seems to be practically impossible to impress upon a large proportion of mothers the dangers to which they expose their infants by adopting bottle-feeding. In the case of deaths from gastro-enteritis enumerated above the capabilities of the mothers concerned had to be rated below the average in over half of the cases. In such cases the real problem is to determine the factor which has caused the cessation. If this is due to insufficient feeding arising from economic circumstances (and there are many grounds for such a supposition) then the proper steps should be taken to provide a remedy. In this connection the most appropriate immediate remedy would certainly appear to be the provision of meals for expectant and nursing mothers.

1. The Lancet (Editorial) Dec. 18th, 1943. p. 770.

2. Sakula—Ibid. p. 758.

Table 54.—Éire. Principal causes of Infant Deaths (ratio per 1,000 Births). The corresponding figures for Cork City are shewn in Table 41.

Year	Congen- ital Debility	Prema- turity	Diarr- hoea and enteritis	Pneu- monia	Convul- sions	Congen- ital Malfor- mations	Bron- chitis	Whoop- ing Cough
1931	16.00	8.58	8.27	7.72	6.78	3.38	3.17	1.16
1932	16.46	8.53	9.33	8.44	6.54	3.40	3.96	2.60
1933	14.38	9.59	8.92	6.99	5.61	3.59	2.79	2.54
1934	13.78	8.05	7.50	6.72	5.41	3.54	3.26	2.97
1935	14.19	9.76	10.65	8.08	4.50	3.90	3.40	1.05
1936	14.44	11.31	10.38	8.96	5.32	4.44	2.96	2.20
1937	13.65	12.16	9.95	8.34	4.99	4.39	2.92	2.46
1938	12.79	10.96	9.12	8.43	4.43	4.38	2.71	1.74
1939	12.68	11.02	9.33	7.67	4.48	4.82	2.35	1.37
1940	13.25	10.67	9.67	7.70	3.55	4.59	2.62	1.77
1941	14.14	11.57	14.18	7.93	4.23	5.57	2.34	1.46
1942	13.66	9.24	14.32	7.11	4.05	5.13	2.51	1.18

The figures for 1943 are not yet available.

(B) NOTIFICATIONS OF BIRTHS.

The Acts bearing on this subject are the Notification of Births Acts, 1907, which was adopted by the Corporation in September, 1922, and the Notification of Births (Extension) Act, 1915. These Acts place an obligation on certain individuals to notify to the Medical Officer of Health within thirty-six hours, births which have occurred in the area. The object of the Acts is to enable the Local Authority to afford advice and assistance to parents on the care and upbringing of children.

The general procedure in connection with the notification of births was outlined in my Report for the year 1932. The total number of such notifications received during the year amounted to 1,605. The number of births *registered* during the same period, according to the Annual Summary of the Registrar-General was 1,706.

(C) MATERNAL MORTALITY.

There were 3 deaths under this heading during the year.

Table 55.—The number of deaths of women directly attributable to or associated with pregnancy or childbirth during each of the years 1924–43, together with the rate per 1,000 births during each of these years, for the City of Cork. (Corrected for Births and Deaths in public institutions).

Year	Deaths from Puerperal Septic Diseases		Deaths from accidents of Pregnancy or Childbirth		Total Deaths from Puerperal Septic Diseases and accidents of Pregnancy or Childbirth		Deaths from causes associated with Pregnancy or Childbirth (not included in foregoing)		Total Deaths caused by, or associated with Pregnancy or Childbirth	
	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births	No.	Rate per 1000 Births
1924...	5	2.55	6	3.05	11	5.60	1	0.51	12	6.11
1925...	5	2.54	5	2.54	10	5.08	1	0.51	11	5.59
1926...	3	1.66	8	4.42	11	6.08	—	—	11	6.08
1927...	5	2.74	6	3.28	11	6.02	—	—	11	6.02
1928...	3	1.64	9	4.92	12	6.56	1	0.55	13	7.11
1929...	—	—	4	2.24	4	2.24	—	—	4	2.24
1930...	1	0.46	3	1.37	4	1.83	—	—	4	1.83
1931...	1	0.52	7	3.63	8	4.10	—	—	8	4.10
1932...	1	0.55	8	4.28	9	4.95	—	—	9	4.95
1933...	1	0.54	8	4.32	9	4.85	1	0.54	10	5.40
1934...	5	2.60	2	0.52	7	3.60	—	—	7	3.60
1935...	1	0.51	5	2.56	6	3.08	—	—	6	3.08
1936...	1	0.52	4	2.08	5	2.60	—	—	5	2.60
1937...	—	—	—	—	—	—	—	—	—	—
1938...	—	—	6	3.51	6	3.51	—	—	6	3.51
1939...	1	0.58	3	1.75	4	2.3	—	—	4	2.3
1940...	—	—	8	4.6	8	4.6	—	—	8	4.6
1941...	—	—	5	2.9	5	2.9	—	—	5	2.9
1942...	—	—	3	1.7	3	1.7	—	—	3	1.7
1943...	1	0.56	2	1.12	3	1.6	—	—	3	1.6

In Table 56 is set out the comparative maternal mortality for Cork, Dublin, Belfast, Limerick and Waterford County Boroughs, and for the whole country.

Table 56.—Maternal Mortality in different areas from 1920 to 1943 inclusive.

Year	Whole Country		Cork City		City of Dublin		Belfast		Limerick County Borough		Waterford County Borough	
	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births	No. of deaths	Rate per 1000 births
1920	326	4.8	13	5.8	55	6.0	95	7.7	3	2.9	2	2.7
1921	336	5.5	8	4.0	53	6.5	53	4.7	1	1.0	3	5.1
1922	370	6.3	7	3.6	61	7.1	55	5.1	12	11.8	—	—
1923	328	5.3	4	1.9	46	5.5	58	5.3	16	5.6	3	4.9
1924	330	5.2	12	6.1	46	5.0	46	4.4	1	0.9	4	5.9
1925	312	5.0	11	5.6	42	4.9	29	2.8	3	2.8	4	6.4
1926	329	5.4	11	6.1	31	3.5	57	5.5	5	4.8	—	—
1927	291	4.8	11	6.0	23	2.8	36	3.7	5	4.8	3	4.7
1928	318	5.4	13	7.1	31	3.5	43	4.6	5	4.5	2	3.0
1929	283	4.9	4	2.2	30	3.4	43	4.8	7	6.2	1	1.6
1930	294	5.0	4	1.8	43	4.1	44	4.6	4	3.7	3	4.6
1931	272	4.7	8	4.1	29	2.1	54	5.7	4	3.5	3	4.5
1932	235	4.9	9	4.9	33	3.1	49	5.5	8	4.0	6	8.6
1933	255	4.4	10	5.4	22	2.1	42	5.2	7	7.1	2	2.8
1934	304	5.2	7	3.6	41	3.7	57	6.3	2	1.9	—	—
1935	272	4.6	6	3.0	38	3.3	54	6.0	6	5.5	4	4.0
1936	273	4.7	5	2.6	42	3.5	57	6.2	2	2.0	3	4.5
1937	204	3.3	—	—	33	2.8	56	6.1	3	2.9	4	5.8
1938	204	3.6	6	3.5	29	2.5	48	5.2	4	4.0	3	4.8
1939	150	2.7	4	2.3	23	2.0	—	4.4	1	1.0	1	1.6
1940	227	4.0	8	4.6	21	1.9	37	4.2	3	3.0	7	10.3
1941	209	3.7	5	2.9	21	1.8	31	3.6	3	3.0	1	1.6
1942	163	2.4	3	1.7	20	1.6	31	3.2	1	0.9	2	2.5
1943	113	1.7	3	1.6	13	1.0	32	2.9	1	0.9	—	—

The above figures were obtained from the Annual Reports of the Registrar-General with the exception of those for the year 1943 (which were taken from the Annual Summary for that year) and those for Belfast, from 1922 onwards, which were kindly supplied by Dr. C. S. Thompson, Superintendent Medical Officer of Health. All figures include deaths from sepsis arising from abortion and miscarriage.

(D) SUPERVISION OF MIDWIVES.

1. Number of Midwives in Practice :—				
Certificate of C.M.B. ....	...	...	...	59
Other recognised certificates ...	...	...	...	23
				—
Total	...	...	...	82
2. Number of Midwives according to type of practice :—				
Attached to public institutions	...	...	...	6
Conducting only private maternity or nursing homes ...	...	...	...	11
Dealing with less than five cases per year	...	...	...	11
Monthly nurses	...	...	...	16
Others	...	...	...	38
				—
Total	...	...	...	82
3. Number of visits of inspection of midwives	...	...	...	353
4. Disinfection of appliances	...	...	...	2
5. Reasons for summoning Medical help :—				
Abnormal presentation	...	...	...	24
Obstructed and delayed Labour	...	...	...	44
Post partum haemorrhage	...	...	...	6
Ante partum haemorrhage	...	...	...	7
Rise of Temperature	...	...	...	3
Ruptured perineum	...	...	...	12
6. Notifications of still births	...	...	...	52
7. Notifications of artificial feeding	...	...	...	128
8. Notifications of having laid-out dead bodies	...	...	...	1
9. Suspensions for twenty-four hours on account of contact with cases of infectious disease	...	...	...	2
10. Notifications of liability to be a source of infection	...	...	...	2
11. Notifications of deaths	...	...	...	98
12. Puerperal Pyrexia	...	...	...	2

It was unnecessary to undertake any legal proceedings against midwives during the year.

ARTIFICIAL FEEDING.

Cracked or inverted nipples	...	...	...	...	33
Health would not permit	...	...	...	...	26
Insufficient	...	...	...	...	51
Refusals for business reasons	...	...	...	...	7
Other refusals (no cause)	...	...	...	...	11
					—

(E) WORK OF THE MATERNITY AND CHILD WELFARE SCHEME.

The following is a summary of the work carried out during the year by the staff of the Centre.

Attendances of children under one year :—

(a) New Cases	...	...	2849
(b) Old Cases	...	...	3946

Attendances of Mothers with Children	...	8974
--------------------------------------	-----	------

Cases seen by the Medical Officer :—

(A) Under one year			
(1) New Cases	...	...	1246
(2) Old Cases	...	...	2462
(B) One to two years			
(1) New Cases	...	...	742
(2) Old Cases	...	...	962
(C) Two to five years			
(1) New Cases	...	...	536
(2) Old Cases	...	...	386
(D) Expectant Mothers			
(1) New Cases	...	...	529
(2) Old Cases	...	...	567

Analysis of cases dealt with by the Medical Officer :—

Consultations on infant feeding	976
Diseases of respiratory system	354
„ new born	3
„ reproductive system	2
„ urinary system	23
„ nervous system	3
„ circulatory system	2
„ alimentary system	557
„ skin	359
„ ears	47
„ eyes	38
Exanthemata	48
Mental defects	2
Congenital defects	3
Orthopaedic defects	2
Rickets	16
Avitaminosis	89
Number of cases dealt with	2524
Number of attendances	6334

Ante-natal work—

Number of cases dealt with	...	529
Number of attendances	...	1096

Return of Health Visitors' work—

(A) Under one year			
(1) Primary visits	...	1634	
(2) Secondary visits	...	4325	
(B) One to two years			
(1) Primary visits	...	1249	
(2) Secondary visits	...	2374	
(C) Two to five years			
(1) Primary visits	...	897	
(2) Secondary visits	...	1654	
(D) Expectant Mothers			
(1) Primary visits	...	753	
(2) Secondary visits	...	498	

The following cases were dealt with at the artificial sunlight clinic during the year :—

Avitaminosis	...	...	89
Debility	...	...	—
Rickets	...	...	16
Non-Pulmonary Tuberculosis	...	...	2
Anaemia	...	...	—
Number of cases treated	...	...	107
Number of Exposures	...	...	854

Section—V. Control of Food Supplies

The following report has been contributed by Mr. S. R. J. Cussen, Chief Veterinary Officer :—

(A) SUPERVISION OF MILK.

578 samples of milk were examined in our laboratory during the year. These samples may be roughly divided into two groups :

1. Detailed bacteriological examination	...	249	samples
2. Dirt test only	... ..	329	„
Total	...	578	

1. The first group *i. e.*, those submitted to full examination comprised samples collected as follows (according to designation) with the addition of 10 samples of pasteurised milk.

Highest Grade	...	2
Standard	...	26
New Milk	...	205
Pasteurised	...	10
*Pre-pasteurised	...	6
Total	...	249

The following tests were applied to these samples :—

(a) Sedimentation Test.

The procedure was identical with that outlined in previous reports and the results obtained in the various grades were :—

	Highest Grade	Standard	New Milk	Pasteurised	Pre-Past.
Very Clean	... 1	8	138	1	—
Clean	... 1	14	248	9	5
Fairly Clean	... —	4	87	—	1
Dirty	... —	—	53	—	—
Very Dirty	... —	—	8	—	—
	2	26	534	10	6

(Note—Col. 3, new Milk, comprises *all* samples submitted to the sedimentation test. This includes samples of ordinary market milk which were submitted to this test *only* as well as samples submitted to full bacteriological examination. Hence the discrepancy between the total for this column and the group above).

* The term *pre-pasteurised* denotes raw milk that has been collected at a pasteurising station and which is intended for pasteurisation.

The Sediment (or Dirt) test is a simple and reasonably reliable one. It does not pretend to absolute scientific accuracy, but as a rough and ready index of general trends in the direction of cleanliness it maintains its position in the armamentarium of the dairy bacteriologist. Since its chief value is that of an indicator of general tendencies the results obtained over a number of years are set out below. Examination of the next two tables will show that there appears to be a definite improvement in the matter of general cleanliness.

Table 57.—Ordinary Market Milk—Result of Dirt Test.

Year	No. of Samples	Very Clean	Clean	Fairly Clean	Dirty	Very Dirty
1930	412	8	72	118	156	58
1931	408	23	61	82	139	103
1932	630	4	27	108	265	226
1933	485	3	27	105	221	129
1934	339	—	19	51	148	121
1935	223	—	7	21	103	92
1936	227	3	21	43	106	54
1937	206	5	31	80	70	20
1938	174	3	36	83	49	3
1939	714	61	184	224	193	52
1940	736	163	251	176	115	31
1941	440	120	162	82	59	17
1942	516	119	223	88	67	19
1943	534	138	248	87	53	8
Totals	6044	650	1369	1348	1744	933

In order to test the general tendency in regard to cleanliness the last two columns of this table have been taken together and further analysed. The results are shown in the next table.

Table 58.—Ordinary Market Milk—Proportion of Samples classified as "Dirty."

Year	No. of Samples	Dirty	Proportion
1930	412	214	51.9 per cent.
1931	408	242	59.3
1932	630	491	77.9
1933	485	350	72.2
1934	339	269	79.3
1935	223	195	87.4
1936	227	160	70.9
1937	206	90	43.6
1938	174	52	29.8
1939	714	245	33.9
1940	736	146	19.8
1941	440	76	17.2
1942	516	86	16.6
1943	534	61	11.3

(b) **Microscopic Test.**

233 samples were submitted to routine microscopic examination. Acid-fast organisms were detected in one of those samples, streptococci were present in 8 and pus cells in 3, and blood in 5. In 216 instances the samples were free from suspicious organisms.

(c) **Bacteria of Faecal Origin.**

Determination of organisms of this character has been a routine for a number of years. Included in this group is *B. Coli*, the presence of which may be regarded as proving carelessness in the production and handling of milk. A full account of the test has been given in previous reports. The findings for the year were as follows :—

Table 59.—Results of Tests for presence of *B. Coli* in Milk.

Designation	No. of Samples Examined	<i>B. Coli</i> Present	Proportion Free from <i>B. Coli</i>
Highest Grade ...	2	—	100 per cent.
Standard ...	26	5	80.8 „
Ordinary Market Milk ...	205	7	96.6 „

(d) **Pathogenic Bacteria.**

Under this heading our principal concern is the presence of the *tubercle bacillus* in milk. Other organisms (*e.g.*, streptococci) are also concerned in a minor rôle and have been alluded to under the heading of microscopic examination. The biological test (involving the use of guinea pigs) is the only reliable test for tubercle bacillus and the results obtained over a number of years are set out in columnar form as follows :—

Table 60.—Tubercle Bacilli in Milk—Results of Biological Tests.

Year	No. of Tests	Positive	Proportion Positive
1931	2	—	—
1932	14	1	7.1 per cent.
1933	63	—	—
1934	10	—	—
1935	25	4	16.0 „
1936	201	13	6.4 „
1937	23	—	—
1938	90	7	7.7 „
1939	71	5	7.0 „
1940	94	4	4.2 „
1941	96	4	4.1 „
1942	105	2	1.9 „
1943	75	6	8.0 „
Total	867	46	5.3 „

The figures for individual years are, on the whole, on the small side so far as reliable information is concerned. The sum total, however, of some 865 tests yielding an approximate proportion of 5.3 per cent. positive may be regarded as a fairly accurate index of the amount of tubercle infection in the local milk supply. This is one aspect of the milk problem which recent legislation has done nothing to solve.

(e) **The Reductase Test.**

The modified method of Wilson has been used. As in the case of other tests mentioned, this method has been fully described in previous reports. Briefly, by means of a colour index which takes into account the rate of decolourisation of a standard solution of methylene blue added to given quantities of milk maintained at a standard temperature, the bacterial content (in numbers) can be estimated. The results obtained are set out below and in order to assist in the interpretation of these results it seems desirable to specify the values attached to the various grades :

Grade I	...	Less than 500,000 bacteria per c.c.
Grade II	...	500,000 to 4 million bacteria per c.c.
Grade III	...	4 million to 20 million bacteria per c.c.
Grade IV	...	Over 20 million per c.c.

Particulars of the various samples and the results obtained are set out below :

(a) Highest Grade Milk—

Grade I	...	1
Grade II	...	1
Grade III	...	0
Grade IV	...	0
		<hr/>
		2

(b) Standard Milk—

Grade I	...	14
Grade II	...	7
Grade III	...	4
Grade IV	...	1
		<hr/>
		26

(c) Ordinary Milk—

Grade I	...	181
Grade II	...	9
Grade III	...	9
Grade IV	...	6
		<hr/>
		205

For *pasteurised* milk and *pre-pasteurised** milk plating on nutrient media with direct colony counts was substituted for the Reductase test and by this method the following results were obtained :

Pasteurised		Pre-pastuerised*	
Sample Number	Bacteria per c.c.	Sample Number	Bacteria per c.c.
1	19,000	1	420,000
2	30,000	2	352,000
3	23,000	3	28,000
4	30,000	4	960,000
5	11,000	5	550,000
6	440,000	6	360,000
7	42,000		
8	16,000		
9	16,000		
10	15,000		

*See footnote on page 68.

Bacteriological Examinations.

- (a) 128 samples were submitted to the Chief Veterinary Officer by the County M.O.H. of milk collected in creameries in the County Area. Collection and examination was at the instance of the Local Government Department.
- (b) On behalf of the Department 44 samples of Designated Milk were collected in the urban area and examined in our Laboratory.

The results are detailed on Pages 74, 75, and 76.

Prosecutions.

(A) MILK AND DAIRIES ACT, 1935.

20 persons were prosecuted for non-observance of the above Act.

18 convictions were obtained and fines amounting to £7 12s. 6d. imposed. 2 cases were marked proved.

With reference to the successful prosecutions—

1	summonses	were	brought	under	Section	24
16	"	"	"	"	"	59
3	"	"	"	"	"	60

Section 24.—Relates to the prohibition of the sale of milk by un-registered dairymen or on unregistered premises.

Section 59.—Relates to the prohibition of the sale of dirty milk.

Section 60.—Relates to the sale of milk in public places and prescribes for the conspicuous inscription of the dairyman's name and address on the vehicle, car or receptacle and the words *Bainne ar díol* *Ma htar ar díol* or *Bláthach ar díol*.

Table 61.—Showing detailed results of proceedings against persons for infringements of the *Milk and Dairies Act*, 1935.

Prosecution under Section	Fines Imposed	Prosecution under Section	Fines Imposed
60	5/- and costs	59	5/- and costs
59	5/- "	59	7/6 "
59	5/- "	59	Proved
59	5/- "	59	7/6 "
60	Proved	59	7/6 "
59	5/- "	59	7/6 "
59	7/6 "	59	7/6 "
24	10/- "	59	7/6 "
59	20/- "	59	5/- "
59	5/- "	60	5/- "

(B) THE MILK AND DAIRIES REGULATIONS, 1936.
and
THE MILK AND DAIRIES (BACTERIOLOGICAL EXAMINATION)
REGULATIONS, 1936.

24 persons were prosecuted for non-observance of the above Regulations.

16 convictions were obtained and fines amounting to £4 11s. 0d. imposed.

8 cases were marked proved, with payment of costs.

With reference to the successful prosecutions, particulars are appended herewith of the enactments concerned with the summonses which were undertaken.

(a) The Milk and Dairies Regulations, 1936.

1	under article	8 (2)
1	" "	9
3	" "	22 (3)
5	" "	22 (5)
1	" "	22 (6)
2	" "	27
1	" "	28
8	" "	40
2	" "	42 (1)

Section 8 (2) Relates to the General Duties of Dairymen.

Section 9 Relates to the General Duty of an Employee.

Section 22 (6) Prohibits the use of Paper Cloth or other Absorbent substance for securing the lid of any churn or appliance used in connection with milk.

Article 22 (3) relates to the cleansing of Vessels and appliances.

Article 22 (5) relates to the storing of Vessels and appliances.

Article 27 relates to the prevention of contamination by dust, dirt or flies.

Article 28 relates to the cleanliness of persons having access to milk.

Article 40 relates to vehicles used for conveyance of milk.

Article 42 (1) Prescribes that every sale container be provided with a tap.

Table 62.—Detailed results of proceedings against persons for infringements of the *Milk and Dairies Regulations*, 1936.

Prosecution under Article	Fines Imposed	Prosecution under Article	Fines Imposed
22 (5)	Proved	22 (5)	7/6 and costs
40	7/6 and costs	40	Proved
22 (5)	Proved	40	5/- and costs
28	5/- and costs	8 (2)	5/- "
22 (3)	7/6 "	40	Proved
27	Proved	42	5/- and costs
22 (5)	Proved	22 (3)	5/- "
40	7/6 and costs	40	5/- "
22 (5)	Proved	27	5/- "
42	5/- and costs	22 (6)	3/6 "
40	5/- "	9	Proved
40	7/6 "	22 (3)	5/- and costs

NOTICES SERVED.

The number of notices sent out under the Milk and Dairies Act and Regulations was 52.

MEAT INSPECTION.

Meat Inspection Depot :—3,227 bovine carcasses were examined. Of this number 666 (20.6%) were found to be affected with varying degrees of tuberculosis. It was found necessary that 8 such carcasses (0.24%) should be totally condemned as unfit for consumption, while 658 (20.0%) were partially condemned. In addition to the 3,227 bovine carcasses above referred to, 1,593 sheep carcasses were also examined at the Depot, and of this number 6 carcasses (0.37%) were totally condemned for diseases other than tuberculosis. 369 veal carcasses were also examined at the Depot and of this number 3 carcasses were totally condemned and 40 carcasses partially condemned as being affected with tuberculosis. 435 pork carcasses were also examined and of this number 2 carcasses (0.45%) were totally condemned and 68 carcasses (15.6%) partially condemned as being affected with tuberculosis. For diseases other than tuberculosis 2 bovine carcasses (0.06%) were wholly condemned and 16 partially (0.27%). For similar reasons 2 veal carcasses (0.46%) and 2 pork carcasses (0.46%) were wholly condemned.

Table 63.—The amount (by weight) of meat examined and condemned at the Depot was as follows :—

Variety	Quantity Examined	Tuberculosis		Other Diseases	
		Quantity Condemned	Pro-portion	Quantity Condemned	Pro-portion
	lbs.	lbs.		lbs.	
Beef ...	1,613,500	5,361	0.33%	606	0.03%
Mutton ...	95,580	—	—	360	0.37%
Veal ...	82,000	750	0.91%	170	0.20%
Pork ...	65,250	1,016	1.55%	300	0.45%

The amount of offals condemned at the Depot for Tuberculosis and other conditions was as follows :—

Part	Tuberculosis	Other Diseases	Total
Lungs ...	1,246	18	1,264
Heart ...	623	7	630
Livers ...	171	274	445
Kidneys ...	35	4	39
Head and Tongues ...	254	2	256
Total	2,329	305	2,634

Meat seized in shops and voluntarily surrendered during the year :—

	Seized	Surrendered
Beef ...	396 lbs.	78,382 lbs.
Pork ...	30 „	31,557 „
Bacon ...	—	— „
Veal ...	—	899 „
Fish ...	—	196 „
Fruit ...	—	— „

Slaughterhouses and Bacon Factories.

Table 64.—**Tuberculosis.** The following are particulars of animals killed in local slaughterhouses and the incidence of tuberculosis therein.

Species	Number	Affected	Totally Condemned	Partially Condemned
Cattle ...	2,984	1,064 (35.6%)	28 (0.93%)	1,036 (34.7%)
Sheep ...	13,293	—	—	—
Pigs ...	1,872	540 (28.8%)	12 (0.64%)	528 (28.2%)

53,361 lbs. of Beef (representing 2.9% of the quantity examined) were condemned on account of Tuberculosis.

1,462 lbs. of Pork (0.52%) were condemned on account of Tuberculosis.

Bacon Factories :—Particulars of pigs slaughtered in bacon factories and reserved for local consumption in the form of pork and sausages were supplied to us by the Veterinary Inspectors of the Department of Agriculture. The number of pigs was 1,354 of which 443 (32.7%) were found to be affected with Tuberculosis. 9 of these (0.66%) were totally condemned and 434 (32.0%) partially condemned.

30,950 lbs. (4.8%) of pork were condemned on account of Tuberculosis.

Table 65.—**Diseases other than Tuberculosis.** Particulars of incidence found in slaughterhouses killings :—

Species	Number	Affected	Totally Condemned	Partially Condemned
Cattle ...	2,984	4 (0.16%)	1 (0.03%)	3 (0.13%)
Sheep ...	13,293	—	—	—
Pigs ...	1,872	3 (0.15%)	1 (0.05%)	2 (0.10%)

8,311 lbs. of Beef (representing 0.57% of the quantity examined) were condemned on account of diseases other than Tuberculosis.

30 lbs. of Pork (0.005%) were condemned on account of diseases other than Tuberculosis.

Bacon Factories :—Less than 0.10% of Pork was condemned on account of diseases other than Tuberculosis.

Table 66.—Inspections carried out in *slaughterhouses* by our veterinary staff were as follows :—

Species	Carcases Examined	Condemned		
		Wholly	Partially	Meat & Offals
Cattle ...	2,984	28	1,036	53,361 lbs.
Sheep ...	13,293	2	—	90
Pigs ...	1,872	2	47	1,316

PROSECUTIONS.

Particulars	Fine	Particulars	Fine
Tuberculosis Beef	60/-	Unsound Meat	15/-
„ „	7/6	Tuberculosis Beef	20/-

THE SLAUGHTER OF ANIMALS ACT, 1935.

The provisions of this Act were outlined in the 1937 Annual Report, it is not proposed to make further reference to them here.

The provisions of the Act were not reasonably observed by occupiers of slaughterhouses and slaughtermen. Consequently there were 2 prosecutions under the Act during the period under review.

The Sections under which summonses were effected were :—

- (a) Section 15—Failure to use an approved instrument.
- (b) Section 18—Registered occupier of a slaughterhouse permitting an offence under the Act to be committed on his premises.

Fines amounting to £1 0s. 6d. and costs were imposed in these 2 cases which brings the total amount of persons convicted under the Act since its inception to 46 and the total amount of fines to £17 14s. 0d.

There are at present 29 persons licensed to use the humane slaughter instrument.

The number of premises within the Cork Urban Sanitary District where meat and meat products are prepared for human consumption is as follows :—

Slaughter Houses—

Licensed (under Public Health Act, 1878)	...	...	20
Registered (being in use before the 1878 Act)	...	...	3
Registered (under the Fresh Meat Act)	...	...	5

Bacon Factories—

Where Pigs are slaughtered for Production of Bacon	...	...	4
Where Pigs are slaughtered for Bacon and Pork	...	...	4
Where Cattle are slaughtered in addition to Pigs for Bacon and Pork	...	...	4

Sausage Factories	14
--------------------------	-----	-----	-----	-----	----

Triperies	7
------------------	-----	-----	-----	-----	---

Number of inspections made of premises where meat is prepared and sold :—

Slaughter Houses	...	...	...	...	4,060
Sausage Factories	...	...	...	...	1177
Triperies	...	...	...	...	1,430
Meat Markets	...	...	...	...	977
Butcher Shops	...	...	...	...	3,282
Pork Shops	...	...	...	...	231

In addition to the above the following inspections were made of provision shops, fish shops and hawkers stands :—

Provision Shops	...	...	...	...	707
Fish Shops	...	...	...	...	118
Fruit Shops	...	...	...	...	151
Hawker's Stands	...	...	...	...	999

The number of Notices served to abate nuisances and remedy defects in Slaughterhouses and Triperies—14.

(C) SALE OF FOOD AND DRUGS ACTS.

MILK.

Appended herewith is the Report of the City Analyst (Mr. D. J. O'Sullivan, M.Sc., F.I.C.)

Table 67.—Showing the number of samples of Milk submitted for Analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adulterated
March 31st, 1943 ...	144	137	7
June 30th, 1943 ...	161	156	5
Sept. 30th, 1943 ...	140	134	6
Dec. 31st, 1943 ...	143	140	3
Totals ...	588	567	21

Table 68.—Showing results of proceedings against vendors of adulterated samples and fines imposed.

Extent and form of Adulteration						Penalties Imposed	
						Fines	Costs
Deficient in Milk Fat	11%; in Solids, not Fat—3%					40/-	15/9
"	"	10%	"	"	—	7/6	15/9
"	"	8%	"	"	—	—	19/9
"	"	6%	"	"	—	6d.	15/9
"	"	10%	"	"	—	7/6	15/9
"	"	8%	"	"	—	5/-	19/9
"	"	15%	"	"	—	7/6	15/9
"	"	16%	"	"	—	7/6	15/9
"	"	6%	"	"	—	3/6	15/9
"	"	8%	"	"	—	5/-	15/9
"	"	36%	"	"	—	7/6	15/9
"	"	13%	"	"	—	10/-	15/9
"	"	6%	"	"	—	3/6	15/9
"	"	8%	"	"	—	5/-	15/9
"	"	33%	"	"	—	—	—
"	"	23%	"	"	—	—	—

BUTTER.

Table 69.—Showing number of Samples of Butter submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adulterated
March 31st, 1943 ...	9	9	—
June 30th, 1943 ...	30	29	1
Sept. 30th, 1943 ...	10	10	—
Dec. 31st 1943 ...	2	2	—
Totals ...	51	50	1

Table 70.—Showing results of proceedings against vendors of adulterated samples and fines imposed.

Extent and form of Adulteration	Fine	Costs
Butter + 3.9% excess water ...	5/-	17/2

SPIRITS.

Table 71.—Showing the number of samples of Spirits submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adul- terated
March 31st, 1943 ...	1	1	—
June 30th, 1943 ...	5	5	—
Sept. 30th, 1943 ...	—	—	—
Dec. 31st, 1943 ...	10	9	1
Totals ...	16	15	1

Table 72.—Showing the number of miscellaneous samples submitted for analysis during the year and the results thereof.

Quarter ended	No. of Samples	Genuine	Adul- terated
March 31st, 1943	123	121	2
June 30th, 1943 ...	112	111	1
Sept. 30th, 1943 ...	109	107	2
Dec., 31st 1943 ...	141	141	—
Totals ...	485	480	5

Table 73.—Showing details in regard to miscellaneous samples examined during the year.

Articles	Mar. 31st	June 30th	Sept. 30th	Dec. 31st
Sweets ...	3	1	—	—
Condensed Milk ...	—	1	1	—
Black Pudding ...	3	4	4	4
Drugs ...	4	2	6	9
Sugar ...	—	—	—	1
Rice ...	9	11	6	4
Confectionery ...	15	5	10	20
Cheese ...	9	7	5	3
Cream ...	3	2	2	1
Jam ...	5	1	3	8
Cocoa ...	3	4	2	—
Gravy ...	3	—	—	—
Vinegar ...	5	4	1	8
Sausages ...	7	17	8	13
Flour ...	11	7	13	11
Baking Powder ...	1	—	—	—
Beer ...	5	3	6	12
Dripping ...	—	—	—	1
Sauce ...	1	6	3	4
Lard ...	1	—	—	—
Bread Soda ...	2	—	—	—
Beetroot ...	—	1	—	—
Cider ...	3	2	1	—
Coffee ...	8	2	—	3
Custard Powder ...	1	1	10	3
Mineral Waters ...	2	8	4	7
Jelly ...	2	1	1	2
Cornflour ...	—	1	1	2
Suet ...	1	—	—	—
Bovril ...	1	—	—	—
Bread ...	1	2	3	2
Oatmeal ...	6	3	1	3
Pearl Barley ...	—	—	1	1
Meat Cubes ...	1	2	1	—
Spice ...	—	—	1	—
White Pudding ...	—	1	1	1
Salad Cream ...	2	—	1	—
Nutmeg ...	—	—	1	—
Soup ...	1	2	—	1
Cooked Meat ...	—	3	2	1
Tinned Soup ...	—	—	—	—
Carrigeen ...	—	—	—	2
Egg Powder ...	1	1	1	—
Coffee Essence ...	—	—	1	1
Coffee Substitute ...	—	—	—	1
Mustard ...	—	1	—	—
Sponge Mixture ...	1	—	—	—
Peas ...	—	2	—	1
Semolina ...	—	1	1	—
Ice Cream ...	—	1	1	—
Tinned Meat ...	—	—	—	1
Lemonade Powder ...	—	1	—	—
Pepper Compound ...	—	—	—	1
Meat Paste ...	2	1	1	3
Jelly Crystals ...	1	—	1	—
Coffee & Chickory ...	1	—	—	—
Blanc-mange Powder ...	1	—	—	—
Pancake Flour ...	1	—	—	—
Salt ...	—	1	—	—

REMARKS.

In the June quarter of the year the proportion of adulterated milk samples was much lower than usual. This is probably accounted for by the mildness of the preceding winter and the consequent early spring grass.

In the case of two samples taken from a supply delivered under contract and showing relatively large deficiencies in fat—23% and 33%—the question of the application of the sampling provisions of the sale of Food and Drugs (MILK) Act, 1935, was raised at the Court hearing. In consequence the cases were marked “proved and dismissed.”

Among the other adulterated samples were custard powders prepared from flours and rice over-polished with talc. These were probably from old stocks. The position as to composition and labelling of these articles seems now to be understood in the trade and complied with generally.

Section VI.—Water Supply.

BACTERIOLOGICAL EXAMINATIONS.

In the report for 1931 I outlined the procedure adopted in connection with the examination of the supply at the bacteriological laboratories of University College, Cork, by Prof. W. J. O'Donovan. In the year 1928 Dr. O'Donovan undertook a detailed and systematic examination in which a very large number of samples were studied. Our subsequent procedure has been based on his findings of that year and his recommendations have resulted in a supply of a consistently high degree of purity. In 1943, as in former years, samples were collected and examined on five days during each week. The procedure included an estimate of the number of bacteria growing at 37° C. in 24 hours. The total number of samples examined amounted to 255. The average number of bacteria in 1 c.c. was 2.72 and the number of samples sterile in 1 c.c. was 49.

The routine procedure in connection with these examinations is that samples are collected by the staff of the Public Health Department in special sterilised bottles. These samples are transmitted to the Laboratory for examination. A report is sent daily to the Medical Officer of Health who, in turn, sends a copy to the Water Engineer. In the event of an unsatisfactory sample coming to light in the laboratory the subsequent cycle of events is speeded up by telephonic communications between the various departments pending receipt of a subsequent formal report. In this manner there is exercised a triple check in the purification and distribution of the supply.

In the following tables are summarised the results of the various examinations carried out during the year (and previous years) at the Bacteriological Laboratories, U.C.C., by Prof. O'Donovan and his staff.

Table 74.—Summary of results of routine examinations of water

Total Routine Samples of Tap Water	Bacillus Coli Test					Average daily No. of Bacteria per c.c.	No. of Samples sterile in 1 c.c.
	100 c.c's —ive	100 c.c's +ive	50 c.c's +ive	10 c.c's +ive	1 c.c's +ive		
255	253	—	—	2	—	2.72	49

As stated above, the examinations carried out during the year included an estimation of the numbers of bacteria growing at 37° C. in 24 hours. The findings are set out in the following table and compared with those of 1932 (in which year the figures were first computed) and following years.

Table 75.—Average number of bacteria per cubic centimetre growing at 37° C. from daily sample for each month.

Month	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
January	14.0	1.8	1.1	2.9	1.2	4.1	1.8	1.7	1.8	2.2	3.4	2.3
February	0.8	1.0	1.6	2.7	1.2	2.8	2.2	1.4	5.3	0.7	2.7	1.2
March	1.6	1.1	1.3	1.6	0.9	1.4	1.9	2.9	1.8	2.8	7.0	1.3
April	4.6	1.5	1.4	1.0	1.6	1.2	1.5	2.6	1.0	1.6	2.6	1.7
May	4.5	1.8	3.4	2.7	1.9	0.7	0.9	1.7	1.3	10.1	2.5	2.4
June	5.4	4.1	21.2	2.1	1.9	0.2	1.4	21.5	4.4	7.3	3.9	6.0
July	44.1	19.2	18.4	2.9	5.0	3.7	2.0	6.6	11.8	4.6	5.8	5.1
August	20.3	14.6	7.4	5.2	1.8	1.0	1.4	6.7	4.2	4.1	4.9	1.2
September	2.2	2.7	1.7	8.9	3.4	2.8	2.2	3.0	4.5	1.4	6.4	4.7
October	4.6	2.1	4.0	7.9	1.4	6.4	2.0	30.8	4.5	1.6	2.1	2.3
November	4.7	1.3	4.2	4.4	2.7	2.8	2.6	9.4	4.5	7.2	4.8	1.9
December	2.2	3.9	4.0	1.2	3.9	5.4	2.2	3.5	2.8	1.4	3.0	2.5

Table 76.—Showing average consumption of Water per Head, per Day (in gallons).

Month	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943
January ...	39.6	38.5	47.6	42.7	41.5	45.6	44.7	38.5	36.7	35.5
February ...	40.0	40.2	44.1	43.1	40.3	40.9	43.1	39.1	36.5	35.6
March ...	39.1	40.1	44.0	41.8	39.5	39.9	39.8	39.2	36.3	36.4
April ...	39.9	41.2	44.4	41.6	41.4	40.1	39.3	37.9	37.4	38.0
May ...	39.2	41.2	46.5	45.1	40.5	40.0	40.2	38.9	37.7	37.7
June ...	42.1	43.6	47.1	45.9	40.5	44.2	44.0	40.8	38.5	39.3
July ...	42.8	46.8	47.1	45.9	40.9	42.8	44.9	43.1	41.1	43.3
August ...	40.6	48.1	46.4	46.3	39.8	41.6	42.6	42.6	39.6	40.4
September ...	41.4	46.5	44.5	45.7	41.3	41.8	41.9	42.0	39.7	42.1
October ...	38.6	43.5	44.8	45.0	40.6	39.5	38.6	40.4	37.7	40.2
November ...	39.0	43.4	44.1	43.1	39.7	37.5	36.7	38.8	37.6	35.7
December ...	40.2	35.2	43.8	42.7	41.8	37.2	39.3	37.5	36.4	37.8

Table 77.—Comparative results of examinations of tap water made during each of the years from 1928 to 1943.

Year	Total number of samples examined	BACILLUS COLI TEST				
		100 c.c.'s -ive	100 c.c.'s +ive	50 c.c.'s +ive	10 c.c.'s +ive	1 c.c. +ive
1928	245	187 (76.3%)	10 (4.0%)	32 (13.1%)	14 (5.7%)	2 (0.8%)
1929	251	153 (60.9%)	44 (17.5%)	40 (15.9%)	9 (3.6%)	5 (2.0%)
1930	268	216 (80.6%)	15 (5.6%)	14 (5.6%)	13 (4.5%)	10 (3.7%)
1931	260	242 (93.0%)	9 (3.5%)	9 (3.5%)	— —	— —
1932	260	245 (94.2%)	3 (1.2%)	12 (4.6%)	— —	— —
1933	253	244 (96.4%)	4 (1.6%)	4 (1.6%)	1 (0.4%)	— —
1934	261	249 (95.4%)	4 (1.5%)	6 (2.3%)	2 (0.8%)	— —
1935	252	235 (93.2%)	3 (1.2%)	7 (2.8%)	5 (2%)	2 (0.8%)
1936	252	244 (96.8%)	2 (0.8%)	5 (2%)	1 (0.4%)	— —
1937	253	235 (92.9%)	11 (4.3%)	6 (2.4%)	0 —	1 (0.4%)
1938	254	251 (98.8%)	1 (0.4%)	0 —	1 (0.4%)	1 (0.4%)
1939	259	254 (98.0%)	1 (0.4%)	3 (1.2%)	1 (0.4%)	— —
1940	261	244 (92.7%)	2 (0.8%)	10 (3.8%)	5 (1.9%)	2 (0.8%)
1941	266	255 (92.1%)	10 (3.7%)	8 (3%)	1 (0.4%)	2 (0.8%)
1942	254	244 (96.1%)	3 (1.2%)	2 (0.8%)	5 (1.9%)	— —
1943	255	253 (99.2%)	—	—	2 (0.8%)	—

The bacteriological results indicate that a high degree of purity was maintained during the year, indicating a corresponding degree of efficiency in the purification plant. The proportion of samples showing an absence of B. Coli in 100 c.c.'s. (99.2 per cent.) was the highest since these tests were commenced.

Section VII.—Sanitary Department.

Table 78—Return of work performed by Sanitary Inspectors.

District	INSPECTION OF											SERVED	
	Houses and Yards	Tenement Houses	Tenement Rooms	Infected Dwellings	Common Lodging Houses	Milk Shops	Bakeries	Work Shops	Slaughter Houses	Factories	Out-workers	Justices Orders	Notices to abate nuisance
No 1 ...	8239	788	775	74	5	107	5	112	—	—	—	—	390
No. 2 ...	3876	1042	2996	101	4	1	—	—	1	—	—	7	193
No. 4 ...	8168	1189	4934	135	—	265	33	458	94	—	—	9	246
No. 5 ...	6469	4955	292	58	36	1	6	97	—	—	—	—	244
No. 6 ...	5054	1327	2297	93	48	1	5	53	—	—	—	19	322
No. 7 ...	10804	661	2792	109	56	31	21	280	60	—	—	21	441
Female Inspector	—	—	—	—	—	—	260	2370	—	1100	191	—	3
Totals ...	42610	9962	14086	570	149	406	330	3370	155	1100	191	56	1839

District No. 3 is divided for purposes of supervision between Districts No. 2 and 4.
The number of inspections carried out by the Corporation Drain Tester was 3,144

Table 79.—Summary of Inspections, etc.

			No. of Inspections
Houses, yards, etc.	...	...	42,610
Tenement Houses	...	...	9,962
Tenement Rooms	...	...	14,086
Infected Dwellings	...	...	570
Common Lodging Houses	...	...	149
Bakeries	...	...	330
Workshops	...	...	3,370
Outworkers	...	...	191
Factories	...	...	1,100
Milk Shops	...	...	406
Slaughter Houses	...	...	155
Drains and W.C.'s Tested	...	...	3,144
Number of Notices to abate nuisances	...	...	1,839
Number of Justices' Orders	...	...	56
Amount of fines imposed in respect of same			£5 19 6

Table 80.—Return of Work carried out by **Veterinary Staff** during the year :—

Slaughter Houses	...	...	...	4,060
Butcher Shops	...	...	...	3,282
Tripe Houses	...	...	...	1,430
Meat Markets	...	...	...	977
Milk Shops	...	...	...	1,452
Milk Vans	...	...	...	1,361
Cowsheds	...	...	...	66
Sausage Factories	...	...	...	1,117
Hawkers' Stands	...	...	...	999
Provision Shops	...	...	...	707
Pork Shops	...	...	...	231
Fish Shops	...	...	...	118
Fruit Shops	...	...	...	151
Cold Stores	...	...	...	12
No of Prosecutions	} See Section V., Prosecutions			
Amount of Fines imposed				

SHOPS (CONDITIONS OF EMPLOYMENT) ACT, 1938.

In the following table are set out particulars of the work done by the Shops Inspectors during the year.

Table 81.—Number of Inspections. 1349

Particulars of Defects Found.

Insufficient Ventilation ...	...	1
Insufficient Heating ...	...	4
No Heating Provided ...	...	—
No Seating Accommodation ...	...	2
Insufficient Sanitary Accommodation		2
No Sanitary Accommodation ...	...	1
No Washing Accommodation ...	...	4
Total ...	...	14
Exemption Orders served (re Sanitary Accommodation)	...	2
Works Notices served ...	...	3

Section VIII.—Housing

Houses erected and let	...	...	...	3054
Houses erected and bought out	...	...	...	95
Houses erected and still repaying mortgage	...	...	...	227
Houses in process of erection	...	...	...	90

Assistance to private persons and Public Utility Societies :—

(a) Under Section 6 of the Housing Acts, 1925–28...	£4,685	0	0
(b) Under the Housing Acts	...	...	£10,405 0 0

Assistance under Small Dwellings Acquisition Acts :—

(a) To houses built by Public Utility Societies	...	£103,125	0	0
(b) To houses built by Private Individuals	...	£58,347	10	0

Amount expended by Corporation on Working Class Dwellings,
£1,065,500 0s. 0d.

Table 82.—The number and rents of the various houses built by the Corporation to date.

Location		No. of Houses	Year Built	Weekly Rents (Including Rates)
Madden's Buildings	...	76	1886	4/4 to 6/6
Ryan's	...	16	1886	2/4 to 5/-
Horgan's	...	126	1891	2/8 to 6/5
Roche's	...	128	1892	2/11 to 6/8
Corporation	...	33	1900	5/-
Sutton's	...	46	1905	5/9 to 6/7
Kelleher's	...	50	1906	5/7 to 7/5
Barrett's	...	89	1906	4/3 to 6/7
MacCurtain Villas	...	76	1922	11/4 to 11/10
McSwiney	...	40	1923	11/-
French's	...	30	1923	10/- and 10/6
Capwell	...	148	1928	* 8/6, 10/6 and 14/-
Turner's Cross	...	152	1930	* 8/-, 10/- and 13/-
Turner's Cross Extension	...	168	1932	11/6 and 12/6
Gurranabraher 1	...	252	1934	† 2/6 to 12/6
" 2	...	108	1935	† 2/6 to 12/6
" 3	...	78	1936	† 2/6 to 12/6
" 4	...	82	1936	† 3/6 to 18/-
Commons Road 1	...	170	1936	† 3/6 to 18/-
" 2	...	106	1937	† 3/6 to 18/-
Bandon Road ...	...	86	1936	† 3/- to 12/6
Baker's Lane 1	...	266	1938	† 3/6 to 18/-
Farranferris 1	...	242	1940/1	† 3/6 to 18/-
" 2	...	206	1939	† 3/6 to 18/-
Assumption Road	...	70	1941	16/-
Greenmount ...	...	210	1941/2	† 3/6 to 18/-
Total		3054	* Exclusive of Rates. † Differential Rents	

Following representations under the 1931 Act to the City Manager by the Medical Officer of Health, Closing or Demolition Orders were obtained on the following houses :—

Blackmoor Lane, 13.
 Blarney Street, 370, 281, 282.
 Berwick Lane, 3, 4, 5.
 Clark's Lane, 3.
 Grattan Street, 19.
 Moore Street, 1.
 Peter Street, 24.
 Pope's Road, 5.
 St. Nicholas Place, 3.

Table 83.—Showing the number of houses built since 1934 and the number of families rehoused and the effect on the population of the City:—

Location	Number of Houses	City Area		County Area	
		Families	Persons	Families	Persons
Gurranabraher ...	520	516	2923	4	22
Commons Road ...	276	10	79	266	1643
Greenmount ...	86	86	430	—	—
Baker's Lane	508	307	1850	201	1210
Farranferris ...	206	—	—	206	1123
Greenmount ...	210	210	1250	—	—
Assumption Road ...	70	70	300	—	—
Totals ...	1876	1199	6832	677	3998

Section IX.—Port Sanitary Administration

Constitution of the Port Sanitary Authority.

The port was constituted a port sanitary district by the Local Government Board (Ireland) on 27th April, 1903. The Authority consists of twenty members chosen by the respective riparian authorities who elect representatives to the joint board as follows:—

By the Lord Mayor, Aldermen and Councillors of the County Borough of Cork	...	...	12
By the Cork County Council	...	...	5
By the Urban District of Cobh	...	...	2
By the Urban District of Passage West	...	...	1

The South Cork Board of Public Health was dissolved by virtue of Section 36 of the County Management Act of 1940 and its powers, functions and duties transferred to and vested in the Cork County Council.

Apportionment of Expenses.

Cork County Borough contributes	...	62½ per cent. of the total
Cork County Council	...	25 ,,
Cobh Urban District Council	...	10 ,,
Passage West Urban District Council	2½	,,

Limits of Jurisdiction.

These are defined in Act 18 of the Cork Port Sanitary Order No. 3 as follows:—"The jurisdiction of the said Port Sanitary Authority shall extend to the whole of that part of the customs port of Cork that lies between Power Head and Cork Head in the County of Cork, together with the waters of the said port of Cork within such limits and all docks, basins, harbours, creeks, rivers, channels, bays and streams within the aforesaid limits and the places for the time being appointed as the customs boarding station or stations for such part of the said port and the places for the time being appointed for the mooring or anchoring of ships for such part of the said port under any regulations for the prevention of the spread of diseases issued under the authority of the statutes in that behalf."

Issue of Deratisation and Deratisation-exemption Certificates.

By the latter dated 12th Dec., 1942, the Minister for Local Government and Public Health authorised the issue of the above certificates in pursuance of the Public Health (Deratisation of Ships) Regulations, 1930. This is, therefore, now an approved port for the issue of such certificates.

Quarantine Anchorage.

Anchorage for vessels with cases of infectious disease on board is between the town of Cobh and the Spit buoy.

Cuskinny Intercepting Hospital.

The intercepting hospital is situated about two miles east of the town of Cobh and about half-a-mile from Cuskinny Strand on the northern shore of the harbour. The hospital was built in the year 1880 by the old Cork Board of Guardians and was acquired by the Port Sanitary Authority in the year 1902 from the Commissioners of Public Works (Ireland) and since has been kept in good repair and condition. During the past year minor repair work was carried out. The function of the hospital is to deal with the more serious types of infectious disease (e.g., small pox, plague, cholera, typhus, etc.) should any such cases arrive in the port necessitating hospital treatment or isolation. Infected vessels would moor at the quarantine anchorage, the patient being removed by motor launch and landed at Cuskinny Strand or some suitable slipway and transferred to the Authorities' ambulance for transport to the hospital.

Procedure for granting Pratique.

Deepladen vessels arriving in the lower harbour and bound for Cork may be detained there for tide. Such vessels are boarded by an officer of the Customs and Excise, who puts the usual questions to the master in regard to the prevalence of illness on board and especially in relation to cholera, plague and yellow fever or as to the prevalence of same at any ports of call en route. If the answers are in the *negative*, free pratique is granted and the vessels allowed to proceed to her moorings. If any answers are in the affirmative, pratique is not granted until the vessel has been visited by the Port Medical Officer. Vessels of light draught able to proceed to the City at any state of the tide are hailed while passing Cobh and if the answers are satisfactory are allowed to proceed to Cork where they are boarded by the Customs Officer and the usual questions are put. In addition, instructions have been sent to all shipping agents for companies using the port of Cork that masters of vessels approaching the port with cases of infectious disease on board are to notify the Authority by wireless.

Measures against Rodents.

All vessels from foreign ports are boarded immediately on arrival by the Port Sanitary Officer who, after satisfying himself as the documents relative to health and deratisation certificates proceeds to the examination of the vessel in regard to rat infestation, particular attention being paid to cargo surfaces as soon as the holds have been opened up. The various cargo compartments are searched for sick or dead rats, which, if found, are submitted at once for bacteriological examination. So far a positive result has not been obtained, but such a result would necessitate suspension of discharge of cargo. In addition, traps are laid in various parts of the ship and rats caught are submitted to examination. Precautions adopted to prevent migration of rodents ashore, comprise the placing of rat guards on all mooring ropes and wires of all except cross-channel vessels. In addition, grain boats from the Argentine have to keep their gangways lime-washed daily and well lighted at night whilst alongside the quays.

The following measures would be adopted in this port in the event of a vessel being found effected with human or rodent plague to prevent egress from ship to shore :—

- (1) Vessel would be breasted off at least six feet from the quayside by placing wood floats between it and the quay wall.
- (2) Besides the adjusting of rat guards, moorings would be parcelled with old canvas on shore side of rat guards and same smeared with Stockholm tar.
- (3) Gangway would be required to be lifted from sunset to sunrise.
- (4) Intensive trapping and examination of rodents caught in the immediate neighbourhood of the ship's berth.

Of all diseases liable to be introduced by shipping, *plague* is without doubt the most to be feared, hence the necessity for the stringent precautions in regard to its prevention. Several of the ports from which shipping arrives in Cork are situated in countries in which plague is endemic, even though the ports themselves may not actually be infected at the time of departure. There is, however, the ever present danger of the importation of *plague infected rats* from such ports and it is in consequence of this danger that so much importance is attached to the systematic trapping and examination of rats taken on vessels coming into this port. As there is always a certain amount of migration of rats from ships to the shore while vessels are tied up at their moorings it is also necessary to maintain a constant sampling and examination of the shore rats taken in warehouses adjacent to the quays. It will be noted from the appropriate tables that of 43 rats taken during the past year, 20 were submitted to post-mortem examination and that all gave negative results. In the previous year 119 were trapped, of which 28 were examined, also with negative results. The rats are examined in the first instance by the Inspector, under the supervision of the Chief Veterinary Officer. In the event of a suspicious finding, the carcase would be referred to the Bacteriological Department of University College for a further examination.

The fact that so many rats have been examined and found negative is not by any means an indication for relaxation in the measures which have been adopted in connection with their reduction and the prevention of plague. One infected rat coming ashore might be the cause of an outbreak among the shore population and from time to time we are reminded of this ever present danger by the discovery of plague infected rats in other ports. Plague is rarely transferred from one human being to the other, such transfer requires an intermediary and the agent is almost always the rat flea. It is only when an epizootic breaks out among the rats and large numbers die that the infecting flea seeks a new host and may transfer his attention to human beings. In countries where the disease is endemic, outbreaks among human beings are always heralded by excessive mortality among rats. Excessive rat mortality on board ship is a very suspicious sign of plague infection and masters are bound to notify any such happening at the port of arrival. Plague is such a deadly disease that no relaxation in preventive measures can be tolerated and for this reason it is necessary to keep up a constant watch over vessels arriving from foreign parts and for systematic examination and extermination of rats.

Water Supply.

Drinking and boiler water is obtained directly from the public supply. There are upwards of 80 such hydrants available in this port. As mentioned in the section dealing specifically with the supply to the City, the water is subjected to systematic sampling and bacteriological examination throughout the year. 255 samples were examined during the year and the results indicated that the water was of first-class quality.

Table 84.—Return of Shipping entering the Port since 1928.

Year	Number of Arrivals			Tonnage		
	Foreign	Coastwise	Totals	Foreign	Coastwise	Totals
1928	442	1,492	1,934	261,612	488,158	749,770
1929	260	1,567	1,827	283,759	525,231	808,990
1930	297	1,636	1,933	364,650	617,783	982,433
1931	272	1,566	1,838	345,430	647,327	992,757
1932	315	1,375	1,690	352,459	602,509	954,968
1933	399	893	1,292	371,757	462,047	833,804
1934	404	817	1,221	407,188	463,169	870,357
1935	285	1,015	1,300	323,631	525,062	848,693
1936	249	1,053	1,302	277,779	583,922	861,701
1937	250	1,098	1,348	300,730	594,396	895,126
1938	239	1,084	1,323	280,403	598,114	878,517
1939	202	1,074	1,276	274,660	521,801	796,461
1940	116	1,053	1,169	174,087	373,841	547,928
1941	—	522	522	Nil	203,976	203,976
1942	Figures not available.					
1943	do. do.					

Table 85.—Summary of Inspections and Defects.

Description	Number of Arrivals	Tonnage of Arrivals	Number Inspected	Number Defective	No. of Defects Remedied
<i>Foreign</i> Steamers	Figures not available		13	11	11
<i>Coastwise</i> Motor	Figures not available		357	95	81
Total	Figures not available		370	106	92

Table 86.—Return of Vessels entering the Port which were dealt with by the Department each month during 1942.

Month	Foreign	Coastwise	Total
January ...	2	20	22
February ...	1	33	34
March ...	—	32	32
April ...	—	38	38
May ...	2	34	36
June ...	1	35	36
July ...	2	31	33
August ...	2	31	33
September ...	1	21	22
October ...	2	30	32
November ...	—	34	34
December ...	—	18	18
Totals ...	13	357	370

Table 87.—Return of Imports and Exports, 1929/43.

Year	Imports (tons)	Exports (tons)
1929	815,347	86,246
1930	906,340	120,610
1931	861,782	85,704
1932	890,377	104,884
1933	710,149	89,319
1934	784,174	66,606
1935	743,939	63,219
1936	788,545	73,673
1937	829,704	78,530
1938	802,238	65,147
1939	900,644	105,659
1940	734,888	74,517
1941	262,222	37,448
1942	Figures not available	
1943	do.	do.

Table 88.—Sanitary defects and nuisances dealt with during 1943.

Dirty Focsles	...	...	...	...	48
Dirty Store Rooms	...	...	...	...	5
Damp Quarters	...	...	...	...	3
Damp Quarters due to sweating	...	...	...	...	1
Leaky Deckheads	...	...	...	...	9
Defective Port Frames and discs	...	...	...	...	35
Defective Flooring Boards and decks	...	...	...	...	2
Defective Hawse Pipes	...	...	...	...	1
Defective W.C. Fittings	...	...	...	...	12
Defective Bogie Stoves, Galley Stoves and Funnels	...	...	...	...	9
Defective Soil Pipes	...	...	...	...	1
Defective Shell-plating in Focsles	...	...	...	...	2
Defective Ventilators	...	...	...	...	3
Defective Steam Heaters	...	...	...	...	2
Defective Doors	...	...	...	...	1
Defective Tank Tops	...	...	...	...	1
Defective Lockers...	...	...	...	...	1
Inadequate Lighting	...	...	...	...	1
Verminous Quarters	...	...	...	...	4
Foul Water Closets	...	...	...	...	33
Dirty Wash Places	...	...	...	...	1
Ships Gear in Crew's Quarters	...	...	...	...	3
Total					178
Verbal Notices Given	...	...	...	...	80
Written Notices Left on Board	...	...	...	...	31
Statutory Notices Served	...	...	...	...	2
Total					113

A total of 843 inspections of vessels were carried out during the year.

TABLE 89—RATS TRAPPED ASHORE.

Month	No.	Mus Decumans	Mus Alexandrinus	Mus Rattus	Species Unknown	No. of P.M. Exam.*
Jan. ...	2	2	—	—	—	2
Feb. ...	1	—	—	1	—	1
March ...	2	2	—	—	—	—
April ...	2	2	—	—	—	—
May ...	—	—	—	—	—	—
June ...	2	1	—	1	—	2
July ...	—	—	—	—	—	—
August ...	—	—	2	—	—	—
Sept. ...	4	2	—	—	—	3
Oct. ...	3	3	—	—	—	3
Nov. ...	2	2	—	—	—	1
Dec. ...	2	1	1	—	—	2
Total ...	20	15	3	2	—	14

* All P.M. Examinations proved Negative.

TABLE 90—RATS TRAPPED ON VESSELS

Month	No.	Mus Decumans	Mus Alexandrinus	Mus Rattus	Species Unknown	No. of P.M. Exam*
January	—	—	—	—	—	—
Feb. ...	—	—	—	—	—	—
March	—	—	—	—	—	—
April	—	—	—	—	—	—
May ...	4	—	1	3	—	3
June ...	4	—	—	4	—	2
July ...	—	—	—	—	—	—
August	—	—	—	—	—	—
Sept. ...	—	—	—	—	—	—
October	—	—	—	—	—	—
Nov. ...	4	—	—	4	—	4
Dec. ...	—	—	—	—	—	—
Totals	12	—	1	11	—	9

In addition 37 Rats were destroyed on s.s. "Irish Fir" as result of Fumigation by SO_2 .

* All P.M. Examinations proved negative.

Section X—Meteorology.

I am indebted to Prof. H. N. Walsh, University College, for the following particulars concerning the weather conditions during the year, and more especially for the trouble which he has gone to to bring up to date the Tables which follow.

Table 91.—Rain fall in inches for each quarter and for each year, 1901–1943.

Year	I.	II.	III.	IV.	Total
1901	10.07	7.62	10.75	10.12	38.56
1902	9.29	7.80	7.31	12.88	37.28
1903	16.89	8.80	14.95	12.13	52.77
1904	13.63	5.71	10.41	7.47	37.22
1905	11.70	6.59	9.82	9.14	37.25
1906	9.46	5.76	5.58	9.03	29.83
1907	4.06	10.10	7.40	16.02	37.58
1908	7.67	5.28	10.16	9.53	32.64
1909	7.61	9.94	2.62	9.74	29.91
1910	10.70	7.24	8.64	11.98	38.56
1911	5.94	6.89	7.87	18.47	39.17
1912	13.46	7.07	9.30	7.05	36.88
1913	13.92	10.32	7.73	12.49	44.46
1914	13.72	3.60	9.85	15.20	42.42
1915	11.62	6.27	9.26	15.68	42.83
1916	8.68	9.19	7.37	21.11	46.35
1917	8.75	6.93	9.40	7.25	32.33
1918	14.75	5.59	13.37	13.73	47.44
1919	10.78	7.11	6.77	6.97	31.63
1920	11.75	14.12	8.90	13.24	48.01
1921	8.04	2.22	8.71	9.90	28.87
1922	13.08	5.45	10.57	8.15	37.25
1923	14.41	5.38	10.71	10.54	41.04
1924	12.32	9.76	11.82	17.66	51.56
1925	10.31	10.49	8.43	11.92	41.15
1926	15.42	8.19	4.68	9.55	37.84
1927	12.20	6.16	11.45	15.06	45.87
1928	16.14	13.86	8.31	17.35	55.66
1929	11.28	6.72	7.27	20.91	46.18
1930	14.98	5.91	12.67	14.35	47.91
1931	12.30	10.35	8.34	13.27	44.26
1932	8.54	8.11	7.31	13.62	37.58
1933	8.61	8.74	5.22	6.47	29.04
1934	9.66	7.13	11.49	13.75	42.03
1935	5.33	9.33	9.98	10.97	35.61
1936	16.77	4.51	9.13	9.88	40.29
1937	19.67	6.12	7.90	8.52	42.21
1938	9.22	7.38	7.99	15.14	39.73
1939	13.01	4.94	7.43	16.53	41.91
1940	14.74	6.64	3.80	17.96	43.14
1941	12.82	5.47	5.73	14.40	38.42
1942	11.39	8.43	8.21	8.17	36.20
1943	11.59	7.47	8.80	10.99	38.85

The mean temp. for 1943 was 50.5° F. The warmest days were June 29th and 30th with a maximum shade temp. of 79° F. The warmest night was July 31st with a minimum shade temp. of 63° F. The coldest night was March 12th with a minimum shade temp. of 27° F.

SUNSHINE.

The total amount of *bright sunshine* each year from 1930 to the present year.

	Hours		Hours
1930	... 1,478.1	1937	... 1,259.4
1931	... 1,313.8	1938	... 1,350.9
1932	... 1,282.5	1939	... 1,393.1
1933	... 1,465.8	1940	... 1,493.9
1934	... 1,480.1	1941	... 1,246.5
1935	... 1,442.0	1942	... 1,482.5
1936	... 1,357.5	1943	... 1,093.8

Table 92.—*Mean Temperature* (°F.) for each quarter and for each year from 1901 to 1943, inclusive.

Year	I.	II.	III.	IV.	For whole year
	°	°	°	°	°
1901	37.5	50.4	57.2	41.9	46.8
1902	40.4	48.1	55.3	43.3	46.5
1903	41.1	49.4	54.4	41.4	46.6
1904	38.3	49.1	55.4	45.6	47.1
1905	42.1	52.4	56.9	42.4	48.4
1906	40.6	50.6	57.9	44.0	48.3
1907	41.3	49.1	57.5	42.1	47.5
1908	40.6	50.4	57.0	46.6	48.6
1909	40.2	50.6	56.9	41.8	47.5
1910	39.5	50.3	56.3	43.2	47.4
1911	39.7	51.3	58.5	42.4	47.5
1912	40.9	50.4	53.5	47.9	48.2
1913	43.0	49.4	57.4	48.7	49.6
1914	40.3	51.4	56.7	43.5	48.1
1915	38.3	49.2	52.7	39.2	44.9
1916	40.0	45.9	53.7	39.7	44.8
1917	36.7	48.1	54.2	43.9	45.7
1918	40.0	51.3	55.0	42.0	47.0
1919	37.6	48.5	54.4	40.0	45.5
1920	40.3	48.9	52.6	42.0	45.9
1921	39.6	48.3	54.3	42.7	46.2
1922	40.2	49.9	57.8	46.4	48.6
1923	44.0	50.7	58.4	43.8	49.2
1924	42.6	51.4	56.7	47.6	49.6
1925	43.3	51.8	57.9	44.5	49.4
1926	45.1	52.1	61.1	44.0	50.6
1927	44.1	52.2	58.5	45.5	50.1
1928	44.7	52.0	58.0	46.4	50.3
1929	43.2	52.3	59.4	45.7	50.1
1930	40.7	52.9	57.8	46.5	49.5
1931	42.3	53.1	58.2	46.7	50.1
1932	43.2	52.1	59.7	46.4	50.4
1933	42.3	54.5	62.1	44.9	51.0
1934	42.4	52.8	59.8	47.6	50.6
1935	44.1	52.7	59.4	44.2	50.1
1936	42.8	52.6	59.9	47.1	50.5
1937	42.6	53.8	59.2	44.9	50.1
1938	45.3	52.3	58.4	46.6	50.6
1939	44.6	53.9	59.8	45.9	51.0
1940	43.2	55.6	58.9	45.4	50.8
1941	40.4	51.8	60.0	47.5	49.9
1942	42.6	53.4	59.6	45.5	50.2
1943	44.9	53.8	57.0	46.3	50.5

BAROMETER.

The mean reading for 1943 was 30.04 ins. The highest was 30.82 ins., on the 1st March. The lowest was 28.72 ins., on the 31st Jan. (Observations at 9 a.m. G.M.T. only).

Table 92.—Showing Monthly Rainfall in Cork for 64 years ending 1942.

MONTH	1878	1879	1880	1881	1882	1883	1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919	1920	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942	1943																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.	In.

Greatest Month's rainfall 13.72 inches in December, 1839

Least month's rainfall 0.02 in June 1921

Greatest number of consecutive days with rain was 21, ending February 12th, 1918.

Greatest number of days without rain (absolute drought) was 26, ending July 3rd, 1887.



Table 93—Temperature at Cork (in the Shade) for 58 years ending 1942.

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YEAR	January			February			March			April			May			June			July			August			September			October			November			December			Mean Temper- ature of Year
	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean	Max.	Min.	Mean				
	Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees			Degrees						
1884	55-31-45.5			54-31-46.5			54-30-45.5			57-34-48.5			68-37-55.5			73-40-59.0			72-45-61.5			74-44-62.2			71-45-58.5			60-34-52.2			60-28-45.2			55-28-41.3			51.8
1885	54-27-41.7			50-27-43.5			54-30-43.5			62-30-48.2			61-34-52.0			73-42-59.2			80-43-62.0			74-46-60.5			65-36-55.2			57-35-46.7			58-31-46.7			54-25-39.5			49.9
1886	52-23-38.0			52-28-41.5			57-25-41.5			65-32-46.7			65-33-50.5			76-45-57.7			79-44-59.5			76-45-60.5			65-39-56.5			64-37-51.5			58-29-45.0			50-22-39.0			49.0
1887	54-30-43.0			54-27-43.5			58-25-42.0			62-26-44.5			70-35-52.5			81-47-62.5			80-47-64.2			76-42-60.7			69-39-55.0			61-28-48.2			54-24-42.0			55-25-39.7			50.0
1888	54-26-43.0			52-26-38.2			56-26-40.7			59-28-46.5			68-39-53.2			73-39-57.0			70-40-57.5			74-42-60.0			66-37-55.5			63-31-50.5			58-27-48.0			56-28-44.7			49.6
1889	58-26-43.0			57-27-42.2			59-29-44.7			58-32-46.7			68-40-48.0			77-46-58.0			77-45-60.0			72-43-58.7			70-38-57.2			59-32-48.2			60-29-48.2			56-29-44.2			49.9
1890	55-29-44.0			54-29-42.5			58-28-45.2			61-29-48.0			70-39-53.0			73-45-58.0			72-43-58.4			72-40-58.4			75-42-50.2			66-34-53.0			60-24-44.6			52-25-39.0			50.3
1891	53-23-40.3			56-31-45.7			61-22-42.1			60-31-46.9			73-34-50.0			78-40-58.6			75-44-59.0			73-40-58.0			71-39-56.5			61-29-48.5			53-28-42.6			55-26-44.0			49.4
1892	55-20-39.2			55-25-42.3			57-24-40.0			62-27-47.2			66-37-53.1			73-39-56.2			73-44-59.0			70-44-60.0			68-37-55.0			56-28-45.0			56-31-47.2			53-27-42.7			49.7
1893	53-21-40.5			53-24-42.5			60-34-47.5			67-31-51.5			69-43-56.5			80-46-59.8			74-46-61.2			77-45-61.7			71-33-55.2			63-31-49.0			59-30-43.0			53-26-42.5			50.9
1894	53-11-39.5			56-28-44.6			57-33-44.8			62-37-49.0			67-34-50.0			71-38-57.0			72-45-69.0			71-44-57.5			66-36-53.5			66-33-49.5			59-28-46.0			54-29-44.5			49.6
1895	47-23-36.5			48-22-34.5			63-27-44.0			61-31-48.2			70-33-53.0			74-40-58.7			70-44-58.7			70-43-59.0			71-46-58.9			62-28-46.0			56-30-45.0			54-26-42.5			48.7
1896	53-26-43.0			55-32-45.2			56-31-46.5			65-34-50.0			74-33-56.2			82-47-60.5			75-42-60.0			73-41-57.5			68-41-55.0			65-30-43.2			53-29-42.0			53-23-40.0			49.9
1897	50-22-37.5			56-32-46.0			55-31-44.0			58-29-46.0			70-35-51.0			75-41-59.0			77-43-61.0			80-45-59.5			67-38-53.2			61-37-52.2			58-32-47.2			53-29-44.0			50.1
1898	55-32-45.8			54-26-41.5			58-28-41.0			60-31-47.7			67-34-51.0			74-39-56.8			78-44-59.5			73-46-69.5			72-40-58.7			64-34-51.3			59-30-44.0			55-27-45.4			50.3
1899	53-26-40.1			52-29-43.0			64-22-43.0			63-29-46.6			65-34-50.6			78-41-59.5			76-45-60.0			76-46-62.3			71-31-54.1			60-29-47.9			55-39-47.2			51-24-40.0			49.5
1900	54-27-39.5			52-14-35.4			51-25-38.6			65-33-47.8			68-36-50.7			75-42-56.8			75-45-60.1			71-42-57.0			67-38-55.1			63-32-48.1			57-29-41.7			52-26-42.3			47.9
1901	49-24-37.8			49-22-35.8			51-34-38.9			59-39-45.0			68-34-51.9			72-37-54.2			76-46-60.2			75-41-57.5			67-39-54.0			61-31-47.0			54-19-41.2			51-26-37.5			46.8
1902	50-25-40.6			52-19-36.6			57-30-44.0			57-29-44.0			67-31-47.3			74-38-53.1			74-40-56.0			68-40-56.2			68-36-53.6			62-34-57.4			55-30-43.5			52-25-39.0			46.8
1903	50-22-39.5			52-29-42.7			52-29-41.1			57-27-43.7			69-36-50.4			70-35-54.0			74-43-56.6			68-40-54.3			64-36-52.4			60-28-46.2			55-24-41.0			48-22-37.0			46.4
1904	49-27-38.5			49-24-37.2			52-25-39.1			60-32-44.4			65-32-48.6			69-49-54.2			73-40-57.3			69-41-56.4			63-38-52.5			63-35-50.2			57-25-43.5			52-28-43.0			47.4
1905	51-29-42.0			55-23-41.6			53-30-42.6			58-33-46.4			68-36-52.6			75-42-58.0			76-45-60.0			70-42-55.5			68-39-53.6			62-26-45.0			52-23-39.0			50-30-43.3			48.3
1906	50-28-41.1			47-25-38.0			58-30-42.6			59-29-44.3			64-33-49.7			75-42-57.8			74-44-59.0			73-44-59.8			71-40-55.0			63-29-49.0			55-29-44.0			53-20-39.0			48.4
1907	49-18-39.6			52-25-38.4			57-32-45.8			64-30-45.4			65-35-48.7			69-49-53.5			78-41-58.6			68-43-57.0			68-38-57.0			60-28-45.9			52-29-49.8			49-27-39.5			47.5
1908	52-23-38.5			53-31-43.0			52-29-40.4			56-26-43.4			68-37-52.0			71-40-55.7			80-46-59.5			74-44-58.2			67-38-53.5			64-33-53.0			56-28-45.7			51-30-41.1			49.0
1909	51-28-40.3			52-22-39.6			56-23-40.6			61-31-46.8			66-33-51.0			69-41-54.0			71-45-58.6			79-43-59.7			65-37-52.3			64-26-49.0			55-20-38.2			50-24-38.3			47.4
1910	50-25-38.5			53-27-39.0			55-30-41.0			60-29-43.9			68-34-51.4			66-44-55.5			70-45-57.5			69-46-57.0			68-37-54.5			62-34-49.0			53-24-39.0			50-28-41.5			47.3
1911	50-27-39.2			53-22-39.7			56-29-40.3			59-27-40.9			70-37-52.2			72-45-56.7			79-44-61.0			73-45-60.2			73-39-54.3			57-31-48.0			53-26-39.9			49-27-39.3			48.0
1912	50-27-40.8			50-32-40.0			57-32-41.8			61-32-47.0			63-36-51.2			66-32-52.9			74-44-55.7			61-36-51.3			68-36-53.5			61-31-50.1			59-33-49.2			54-30-44.3			48.1
1913	52-27-40.6			54-32-43.6			55-34-45.0			59-29-44.7			64-36-49.5			75-38-54.0			74-47-55.9			74-40-58.8			72-44-57.6			61-32-51.5			60-34-48.9			56-33-45.6			49.6
1914	54-43-48.5			55-50-53.0			55-50-52.4			60-53-56.9			62-55-58.2			70-59-64.4			69-53-64.8			67-63-64.6			66-60-62.6			62-55-58.4			58-50-53.4			53-46-50.0			47.2
1915	50-37-43.5			45-25-35.0			58-35-46.5			50-35-42.5			62-40-51.0</																								

Appendix I.

OPERATION OF THE SCHEME FOR THE TREATMENT OF VENEREAL DISEASES.

Table 93—Record of Work Done in the V.D. Treatment Centre.

	Cork City		Cork County		Other Districts		Total		Total Male and Female Cases
	M.	F.	M.	F.	M.	F.	M.	F.	
<i>New Cases (1st time)</i>									
Syphilis ...	33	42	23	13	2	—	58	55	113
Soft Chancre ...	3	—	—	1	—	—	3	1	4
Gonorrhoea ...	26	31	9	11	2	—	37	42	79
Not V.D. ...	51	25	21	3	—	1	72	29	101
Total ...	113	98	53	28	4	1	170	127	297
<i>Total Attendances :—</i>									
Syphilis ...	1342	1114	345	342	2	—	1689	1456	3145
Soft Chancre ...	12	—	—	1	—	—	12	1	13
Gonorrhoea ...	226	353	84	118	2	—	312	471	783
Not V.D. ...	79	24	32	7	—	—	111	31	142
Total ...	1659	1491	461	468	4	—	2124	1959	4083
<i>Cured :—</i>									
Syphilis ...	1	1	—	—	—	—	1	1	2
Soft Chancre ...	3	—	—	—	—	—	3	—	3
Gonorrhoea ...	29	4	8	2	—	—	37	6	43
Not V.D. ...	—	—	—	—	—	—	—	—	—
Total ...	33	5	8	2	—	—	41	7	48
<i>Pathological Exams. :—</i>									
Wassermanns ...	173	59	52	16	1	—	226	75	301
Gonococci ...	52	36	11	5	—	—	63	41	104
Kahn ...	151	9	37	2	—	—	188	11	199
T.P. ...	18	—	5	—	—	—	23	—	23
Total ...	394	104	105	23	1	—	500	127	627
<i>Therapy :—</i>									
Stabilarsan or other Arsenicals ...	719	712	198	201	2	—	919	913	1832
Bismuth Preparations ...	633	308	169	109	2	—	704	417	1121
Irrigations ...	68	—	13	—	—	—	81	—	81
Douches ...	—	66	—	37	—	—	—	103	103
Sulphonamide ...	178	178	57	30	2	—	237	208	445
Iodides ...	15	2	2	—	—	—	17	—	17
Total ...	1713	1264	439	377	6	—	1958	1641	3599

In last year's report I drew attention to the great increase in the incidence of these diseases and remarked that the figures indicated a very disquieting state of affairs. The record for the current year is still more disturbing. Figures for syphilis are more than double those of last year and over four times greater than in 1941. The incidence of gonorrhoea is steadily mounting too and the figures of new cases show an increase of nearly 100 per cent. over those of two years ago. Perhaps the most disquieting feature of all is the increase in female cases noted during the past year. New cases of syphilis under this heading have increased from 20 in 1942 to 55 in 1943, while the total of *all* female cases increased from 48 to 127. This is an alarming situation since, it indicates not only a growing reservoir of infection but, what is worse, a lowering of the moral standards of the community. It must not be thought that the figures here recorded indicate the whole extent of the problem. This is not the case, for we know that many persons are treated privately by practitioners. The extent to which such treatment is carried-out cannot be stated definitely but there is no doubt that the number of cases dealt with is increasing at a rate which is even more rapid than those demonstrated in the tables. This is indicated by the demand for therapeutic supplies from private practitioners. In 1942 we supplied a total of 54 ampoules, in 1943 the amount was 789 ampoules. Taking into consideration the disastrous effects of such a disease as syphilis, not only in the affected individual but in the future generations, it is apparent that this is a public health problem of the first magnitude. From the statistical material available it would appear that there has been a world wide increase in venereal disease coincident with the war. Allusion has been made to this increase in the Annual Report for 1943 of the New York City Health Department in which the following significant passage occurs :

" When we find syphilis making serious inroads among our youth,
 " it is clear that the people must be awakened to the importance
 " of this issue. The need for medical treatment of those
 " contracting venereal disease must be made clear, but for young
 " people it would be a terrible mistake not to stress, even more,
 " standards of conduct that are preventive."

Table 94.--Record of *new cases* treated annually at Centre.

Period	Syphilis	Soft Chancre	Gonorrhoea	Not V.D.	Total
1937	29	2	34	30	95
1938	29	—	42	34	105
1939	37	1	27	42	107
1940	34	8	30	46	118
1941	25	6	42	68	141
1942	54	4	63	67	188
1943	113	4	79	101	297

Table 95.—Record of new cases treated during 1942 (non V.D. Cases not included).

Period	Males	Females	Total
Jan.	8	10	18
Feb.	11	10	21
Mar.	11	5	16
Apr.	2	7	9
May	9	6	15
June	4	10	14
July	8	5	13
Aug.	12	8	20
Sept.	8	6	14
Oct.	5	10	15
Nov.	14	15	29
Dec.	6	6	11
Totals	98	98	196

Table 96.—Monthly attendances at V.D. Centre, 1942.

Period	Males	Females	Total
Jan.	177	115	292
Feb.	175	125	300
Mar.	181	147	328
Apr.	156	83	239
May	144	198	342
June	173	144	317
July	140	183	323
Aug.	195	141	336
Sept.	174	168	342
Oct.	188	217	405
Nov.	229	235	464
Dec.	192	203	395
Totals	2124	1959	4083

Appendix II.

OPERATION OF THE COUNTY BOROUGH SCHEME FOR THE WELFARE OF THE BLIND.

The following are the terms of the Scheme drafted for this purpose and now in operation within the Borough :—

In this scheme the term “Blind Person” shall mean any inhabitant of the County Borough who is so blind as to be either unable to perform any work for which eyesight is essential, or unable to continue his or her ordinary occupation; the term “The Corporation” shall mean the Lord Mayor, Aldermen and Burgesses of the County Borough of Cork, acting by the City Manager; the term “The Minister” shall mean the Minister for Local Government and Public Health.

2. The Corporation will establish and maintain a Register in which shall be entered the name and address, age, sex, religion and other necessary particulars of every blind person who shall produce a certificate from a recognised Ophthalmic Surgeon that the acuity of vision of such person (refractive error being corrected) is below 1/20th normal (3/60th Snellen), or that such person is so blind as to be unable to continue his or her ordinary occupation. Any person between the ages of 30 and 70 may, however, be registered without producing such certificate on furnishing evidence of being in receipt of a pension in pursuance of Section 6 of the Old Age Pensions Act, 1932. The Register shall be kept written up-to-date, and shall be revised annually in the month of January. The Corporation shall be empowered to pay reasonable fees to Ophthalmic Surgeons for certifying in cases of necessitous persons.

3. Arrangements will be made by the Corporation with the Authorities of one or more of the Institutions for the Blind mentioned in the Schedule hereto on such terms as may be approved by the Minister for the following purposes :—

- (a) the education or industrial training of suitable blind persons between the ages of five years and thirty years ;
- (b) the employment in workshops for the Blind of blind persons suitable for such employment, their maintenance in a Hostel, and the augmentation of their wages ;
- (c) the maintenance in Homes of blind persons who, owing to age or infirmity, are incapable of work.

4. The Corporation may in cases of unemployed and necessitous blind persons ineligible for education or industrial training under Article 3 (a) of this Scheme and living in their own homes or in lodgings, grant assistance to such persons in accordance with the following scale:—

Classification of Blind Persons	Amount of weekly allowance
(a) Blind person over 15 years and under 30 years of age	12s. 6d.
(b) Blind person 30 years of age and upwards	... 6s. 0d. (with pension)
(c) Married man under 30 years of age with wife dependent on him ... ..	... 19s. 0d.
(d) Married man 30 years of age and upwards with wife dependent on him ... ..	... 12s. 0d. (with pension)
(e) Additional allowance for each child ... ..	... 2s. 6d.

In considering the grant of allowances on this scale to the classes of blind persons at (a) and (c) above, the Corporation will not take into account casual earnings of any such person where they are satisfied that such earnings do not exceed six shillings per week.

5. Nothing in this Scheme is to be construed as giving blind persons irrespective of their means or conduct, a right absolute to assistance. The Corporation will not grant an allowance under Article 4 above to any blind person under 30 years of age who is capable of instruction and who declines without a satisfactory reason to take advantage of the facilities for education, training or employment under the Scheme, or who is by conduct or otherwise deemed unsuitable for assistance. No habitual mendicant shall be granted an allowance under the Scheme unless the practice of mendicancy is discontinued. No person shall be eligible to receive assistance under this Scheme who shall not have been resident within the County Borough for two years previous to date of application for assistance.

6. The Corporation may incur such expenditure in the execution of this Scheme as the Minister may from time to time approve.

7. This Scheme shall come into operation on the 1st October, 1932, and shall continue for a period of three years, but may during the period with the consent of the Minister be modified, extended or revoked by the Corporation, and with the like consent may be continued for such further time as may be deemed necessary. Any question, dispute or difference arising in connection with the interpretation of this Scheme shall be determined by the Minister whose decision shall be final.

SCHEDULE.

Institutions for the Blind Approved by the Minister	Class of Blind Persons Received
1. St. Mary's Institution for Female Blind, Merrion, County Dublin	Females, also boys up to 7 years of age
2. St. Joseph's Asylum for Male Blind, Drumcondra, Dublin	Males
3. Richmond National Institution for Industrious Blind, 41, Upper O'Connell Street, Dublin	Males
4. Cork County and City Asylum for the Blind, In- firmary Road, Cork	Males and Females

The number of persons receiving weekly allowances in their own homes from the Corporation during the year was 235, and the disbursements under the heading amounted to £4,282 4s. 6d. 26 applications were received for allowances. Other disbursements amounted to £82 12s. 0d. (examinations, grant to National Council and other expenses). In addition to the above-mentioned 25 cases maintained in Institutions by direct grants from the Corporation, viz. :—Cork Blind Asylum (5 males and 6 females) ; St. Mary's, Merrion (13 females) ; and Richmond National Institution (1 male). The total cost of the maintenance amounting to £520 6s. 0d.

The following note is contributed by the Hon. Secretary of the local branch of the National Council for the Blind of Ireland.

Home Teaching for the Blind.

Under the National Council for the Blind, this very essential service has been inaugurated in Cork City, to which the Corporation has granted a small annual contribution towards the expenses incurred by employing trained and qualified Home Visitors and Teachers.

The work of the Home Visitor is varied and broad, embracing social as well as mental instruction. She must help the blind to become active members in their homes, teach them to read embossed type, various handicrafts, such as knitting and rugmaking, and to bring an interest and hope into their otherwise hopeless lives.

The Home Visitor can help to prevent blindness in children, who often, through parental ignorance and negligence, or want of interest, lose their sight, which under proper care and supervision can be cured by seeing that they are provided with glasses where necessary and sent for treatment. She also gives her assistance and advice over pension applications, appeals and better accommodation.

Wireless sets are distributed on loan where most required, entertainments organised and free seats at musical shows secured.

Voluntary visitors also give their services to read and spend some time talking to the lonely blind, who greatly appreciate these visits.

Classes are held weekly for instruction in basket making, chair-caning and other forms of handicraft. The finished articles are presented for sale only if up to standard—no inferior goods labelled “ Made by the Blind ” are passed for sale. Efficiency is the definite aim.

The Home Teacher becomes a real friend of the Blind, who turn to her in all their difficulties, knowing that they will obtain help and encouragement to become as useful and important as their sighted brothers and sisters.

Suitable cases are urged to enter institutions for the blind and arrangements made for this purpose.

The Home Teacher has office hours daily where any blind or defective sighted person can get in touch with her and make enquiries. Over the Home Visitor is an Executive Council who meet monthly, receive the reports of the Home Visitor, deal with various cases, arrange the financial side of the work and follow closely and with interest the progress which is being made.

The following is a resume of the work done by the Home Visitors of the National Council for the Blind.

Number of City cases on Register on 31st December	...	363
Visits paid to the Blind	... ..	1,926
Visits paid on behalf of the Blind	... ..	173
Interviews at the Office, City Hall	... ..	733
Number of Braille Readers	... ..	21
Number of Moon Readers	... ..	3
Number attending Men's Handicraft Class	... ..	8
Number attending Women's Handicraft Class	... ..	10
Number of Home Workers whose work is of saleable standard	... ..	34
Number sent to Convalescent Home	... ..	1
Number helped to obtain spectacles and artificial eyes	... ..	5
Number given Fuel and Christmas Gifts	... ..	89
Number given help over Dentures	... ..	4
Number given Nourishment and Relief	... ..	138
Number given Wireless Sets on Loan	... ..	98

Appendix III.

Physical Features of the Area

The City of Cork is situated on the river Lee, fifteen miles from its mouth in Cork Harbour. On the north bank of the river there is steep rising ground almost prohibiting building development, save in the form of hillside roads and open building of large houses, with the exception of the marked break of the Blackpool valley, very full use of which has been made. Next comes the flat island comprising the centre of the City. This island is almost entirely artificial, and consists of six feet of filled-in material, with ten feet of slob below that and then gravel overlying old red sandstone. Southwards is a gently undulating tract of land about one and a half miles wide enclosed by a range of hills. There is a considerable amount of land liable to flood in the Lee Valley, west of the city, towards Carrigrohane, and the flatness of the islands on which the city is built and the height to which unusual tides ascend being nearly to the crown of the arches of the old bridges, render certain portions of the city itself also liable to flooding.

The geological formation of the city region is simple and clearly marked in its effect on the landscape. There are only two systems visible, both paleozoic rocks, the carboniferous limestone and the older underlying Devonian, representing the old red sandstone. Each of these formations is in two series; the carboniferous in a crystalline limestone and in a dark shale (with some 10 feet slate); The Devonian in the upper old red sandstone (yellowish and reddish) and in the lower, old red sandstone (red and purple). The characteristic aspect of the countryside has been caused by the crinkling of these strata into regular parallel folds. Further the limestone which should have formed the ridge of the anticlines has been denuded or dissolved away, so that the highest ground consists of old red sandstone, and even the lower series of this; the hollow folds, floored by limestone, have been subsequently protected from further denudation by a covering of boulder clay. In this immediate region there are thus three old red sandstone ridges and two limestone valleys, in the northern of which the city stands under the brow of the northern sandstone ridge. If this sandstone ridge had possessed its original limestone capping, it would probably have been at least 2,000 feet high.

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